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HIGHER EDUCATION AND TEACHER TRAINING IN YUGOSLAVIA

by

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PART I

THE YUGOSLAV STATE AND THE EDUCATIONAL SYSTEM

Yugoslavia's national legacy coupled with important socio-political and economic developments which have occurred in the country since the Second World War have brought about great changes in the structure, character and extent of the educational system.

The modern Yugoslav state came into existence in 1918 on the ruins of two multi-national empires--the Ottoman and Austro-Hungarian. For centuries the Yugoslav peoples had been subjected to diverse cultural, political and other influences of the ancient Byzantine, Medieval and Western civilizations. These influences left deep traces in the architecture, customs, languages and religions of the Yugoslav peoples and upon their national culture and physiognomy. Here, on Yugoslav soil, East and West met, and Byzantine, Central European and Western civilizations conflicted, blended, separated and became rooted.

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Yugoslavia is primarily a Balkan country, but because of the extent of her northern territory it belongs partly to Central Europe. It is also a Mediterranean country since its south-western regions stretch along the Adriatic Coast. Yugoslavia has often been said to be the natural bridge between Europe, Asia Minor and Northeast Africa. Belgrade, its capital, is the gate-way to Central Europe and the starting point for the South and Southeast. The Adriatic Sea is the most important natural outlet linking Yugoslavia with the sea-ways of all parts of the world, and is very important economically since its harbors are the nearest ones to many Central European countries.

The geographical position of Yugoslavia in the Balkans, often described as the meeting place of continents, has been a decisive factor in the development of her peoples, and is responsible for her character as a transit country in economic geography. In configuration, about seventy-five per cent of Yugoslavia is mountainous which is in sharp contrast to the flat fertile valleys of the Danube, Tisa, Sava and Drava Rivers in the north and northeast sections of the country. Her lakes are famed for their beauty and the indented Yugoslav Adriatic coast is known as the coast of a thousand islands.

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Yugoslavia is a multi-national state. It is composed of six republics: Serbia, Croatia, Bosnia-Hercegovina, Slovenia, Macedonia and Montenegro. Present day Yugoslavs speak three different languages (Serbo-Croatian, Slovene, and Macedonian), use two different alphabets (Cyrillic and Latin), and practice three different religions (Eastern Orthodox, Roman Catholic and Moslem). In addition to its major nationalities, Yugoslavia also has several national minority groups.

Full of variety and picturesque, Yugoslavia is a fascinating mixture of Slavic, Turkish and Western cultures. But, in spite of all the different influence which have left their imprint on this country which intersects the roads between East and West, the Yugoslavs have succeeded in preserving their individuality.

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Population

According to the last official census (1961), the population of Yugoslavia was placed at 18,549,291. Estimated figures for 1965 had increased this number by almost one million people. By 1971, Yugoslavia is expected to have 20.9 million inhabitants increasing to 23.0 million by 1981. The major increases are expected in today's high nativity areas (Kosovo-Metohija, Bosnia-Hercegovina, Macedonia and Montenegro), and a relatively low increase in other areas (Serbia proper, Vojvodina, Croatia and Slovenia).[1] The population by republic and by national structure is shown in Tables 1 and 2.

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[1] "Forecast of the Population of Yugoslavia for the Period 1961-1981," *Yugoslav Survey*, Vol. V, no. 16, Belgrade: Federal Secretariat of Information, January-March 1964, p. 2262.

Table 1.--Population by Republic (March 31, 1961)

Republics	Population
Serbia	7,642,227
Croatia	4,159,696
Bosnia-Hercegovina	3,277,948
Slovenia	1,591,523
Macedonia	1,406,003
Montenegro	471,894
Total	18,549,291

SOURCE: *Statisticki Godisnjak SFRJ 1964* (Statistical Yearbook of SFRY 1964), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1964), p. 351.

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Table 2.--National Structure of Population (March 31, 1961)

	Number	
Yugoslav Peoples		
Serbs	7,806,213	
Croats	4,293,860	
Slovenes	1,589,192	
Macedonians	1,045,530	
Montenegrins	513,833	
Moslems (ethnic group)	972,954	
Total	16,221,582	(87.5%)
National Minorities	2,010,584	(10.8%)
Undeclared	317,125	(1.7%)
Total	18,549,291	

SOURCE: Gabor Janosi, "Education and Culture of Nationalities in Yugoslavia," Studies, 4 (Beograd: 1965), p. 40.

Yugoslavia is a multi-national country, not only with regard to the republics which form her administrative-political units, but also with regard to her national minorities. In addition to the Serbs, Croats, Slovenes, Macedonians and Montenegrins, there are nine national minorities in Yugoslavia. The census of March 31, 1961, listed approximately two million members of national minorities living in the country: 915,000 Shiptars, 504,000 Hungarians, 183,000 Turks, 86,000 Slovaks, 63,000 Bulgarians, 61,000 Rumanians, 39,000 Ruthenians, 30,000 Czechs, 26,000 Italians, as well as 104,000 members of other nationalities.[2] Two notable regions with massive population of national minorities are the Autonomous Province of Kosovo-Metohija (Shiptars and Turks) and the Autonomous Province of Vojvodina (Hungarians, Slovaks, Rumanians, Ruthenians and Czechs). Both of these provinces are in the Republic of Serbia.[3]

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[2] "National Minorities in Yugoslavia," Data on Yugoslavia, (Beograd: Press Service, November 1964), p. 1. See also: Statistical Pocket-Book of Yugoslavia, Federal Institute for Statistics, (Beograd: 1966), p. 25.

[3] Gabor Janosi, "Education and Culture of Nationalities in Yugoslavia," Studies, 4 (Beograd: 1965), p. 25.

Belgrade, the capital city of Yugoslavia, is old in terms of history, but in the composition of its population, it is a city of youth, the average age being 27 years. According to the latest statistical data, the city has some 992,000 inhabitants, or 2.3 times the number in 1945 at the close of the war. There are 201,394 children under 14 in Belgrade today, or a quarter of all its citizens. Young men and women between 14 and 29 number 218,780, which, together with the children, make up half of all Belgrade residents. The population has grown mainly from the influx of people from all parts of Yugoslavia coming to Belgrade. The total annual average in the last ten years has been 20,000 people. Only a third of the inhabitants are employed, most of these in economic branches.[4]

Building a New Society

The fight for freedom and independence of Yugoslavia in the Second World War was simultaneously and inseparably linked with the question of a new form of government--a new social order involving a new state system and new forms of organization.

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[4] "Belgrade's Population 2.3 Times More than in 1945," Yugoslav News Bulletin, IV (February 1966), p. 5.

Before the war, Yugoslavia was an underdeveloped and agricultural country. Seventy-five per cent of its population was employed in agriculture while only 1,050,000 of its 16,000,000 people were industrial workers and clerks.[5] The rate of economic growth was low, unemployment was high, and regional differences in economic and social development were wide. Added to this, 45 per cent of the population over ten years of age was illiterate, and in some regions (Bosnia-Hercegovina and Macedonia) illiteracy was over 70 per cent. In 1938/1939, only 27.3 per cent of the population between the ages of 5 and 24 were attending school.[6] Educational standards of women and young girls in pre-war Yugoslavia are best illustrated by the fact that 56.4 per cent of the total female population could not read or write.[7]

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[5] _Basic Aims and Principles of Workers' Training_, (Belgrade: Confederation of Trade Unions of Yugoslavia, 1964), p. 5.

[6] Rodoljub Jemuovic, "Education in Yugoslavia," _Studies_, 3 (Beograd: 1964), pp. 3-4.

[7] Suzana Duric and Gordana Dragicevic, "Women in Yugoslav Society and Economy," _Studies_, 2 (Belgrade: 1965), p. 10.

The underdevelopment of the economy was also reflected in the educational system. Four-year elementary school was compulsory but in practice a considerable proportion failed to complete the course. The number of schools was small and modern or adequate vocational training was nonexistent. For many branches of the economy there were no schools whatsoever. The system was neither systematic nor coordinated making it extremely difficult to pass from one level to the next. Children in rural areas were not afforded opportunities to continue education in schools of a higher level. There was discrimination against minorities and the entire people of Macedonia did not have a single school in their native language.

The aims of pre-war education were confined primarily to imparting the fundamentals of literacy to pupils attending the compulsory four-year elementary schools, training the necessary number of civil servants, and educating a small intelligentsia. The underdeveloped economy did not need highly qualified personnel and consequently exercised very little influence on the educational system or its policy. Almost two-thirds of the persons holding a university degree at that time were teachers and lawyers.[8]

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[8] Marijan Filipovic, Higher Education in Yugoslavia, (Beograd: Jugoslavija Publishing House, 1962), p. 9.

During the Second World War, Yugoslavia was the scene of desperate fighting, extensive devastation and fratricidal warfare. Losses in population, transportation, agriculture and industry were among the heaviest in the world. One out of every nine of its citizens was killed. Next to Poland, Yugoslavia suffered, relatively, the largest wartime loss of population, among which were 10,000 teachers. The war left the country physically exhausted and the economy crippled and impoverished.

The devastation caused by the war completely disorganized the entire school system in Yugoslavia. Only 13 per cent of the school buildings were usable after the war. Of the higher schools in Belgrade, the Technical Faculty lost 13 institutes, the Medical Faculty five, and the new Philosophical Faculty was completely destroyed. Even greater damage was suffered by the Faculties in Zagreb and Ljubljana. The Law Faculty in Subotica and the Philosophical Faculty in Skoplje were pillaged.[9] Precious laboratories, scientific collections and libraries built through long decades and equipped at great costs were lost. The closing of the majority of schools from 1941-1945 caused illiteracy to increase. The lapse in education was particularly difficult in universities following the war as some ten age groups had to begin or resume their university training.[10]

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[9] Rodoljub Jemuovic, Obrazovanje i Reforma (Education and Reform), (Beograd: Sedma Sila, 1966), pp. 6-7.

[10] Jemuovic, "Education in Yugoslavia," op. cit., p. 6.

The Second World War and its outcome completely altered the internal political structure of Yugoslavia. The former monarchy was abolished and a socialist system of government, guided by Marxist-Leninist principles, was established under the leadership of Josip Broz Tito. The country was organized as a "federation of socialist states"--in this case, the six republics.

Profound changes were also made in the economic institutions of the country. The socio-economic system was based on social ownership of the means of production, self-management in economic enterprises and other organizations, and income distribution according to work. The concept of self-management, first applied in 1950 to Workers' Councils, was later extended to include education, public health, culture, public services and public administration.

In the post-war years, great efforts were made in rebuilding an economy devastated by war and in industrializing the country. From a predominantly peasant farming country, Yugoslavia has grown into a moderately developed industrial state.[11] Although industry does not yet approach agriculture in the size of its labor force, it accounts for approximately half of the gross national product. Agriculture provides for only a quarter.[12]

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[11] "Once An Idea Now the Basis of the Social System," Yugoslav Life, X (September 1965), 1.

[12] Trade Unionism in Yugoslavia, (London: Trade Union Congress, October 1964), p. 3.

Before the war, eighty per cent of Yugoslav exports consisted of agricultural products and primary commodities. Today, eighty-two per cent are industrial products. The output of electrical power has increased fifteen times in the last two decades, coal production more than four times and production of crude iron more than ten times. New branches of industry developed which had not previously existed: shipbuilding, auto manufacturing, machinery construction, electric power generation, naphtha, etc.[13] In the ten year period from 1953 to 1963, those employed in industry nearly doubled. The figure rose from 634,000 to 1,222,000.[14]

Changes in Education

The rapid development of the economy and its productive forces, the demand for a higher level of qualified personnel, and the need for training workers for their new role in the system of self-management required corresponding changes in the system of education. Increased emphasis was placed upon improving the productivity of labor in industry through the use of modern technology. This in turn raised the problem of the quality of the labor force and the adaptation of the educational system to the needs of industry.

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[13] "Two Decades in the Development of the Yugoslav Economy," Data on Yugoslavia, (Beograd: Press Service, December 1964), p. 2.

[14] "Industrial Development," Data on Yugoslavia, (Beograd: Press Service, December 1964), p. 1.

Immediately after the war, Yugoslavia was faced with the problem of raising the overall cultural level of its people and providing for their education on a mass scale.. It was necessary to resume instruction and provide facilities, equipment and staff for the hundreds of thousands of pupils and university students whose education had been interrupted by war. Curricula were revised and modernized. Schools for the national minorities were opened with instruction in the mother tongue. To reduce illiteracy, courses were organized in which approximately two million persons learned to read and write during the 1946-1950 period.[15] Compulsory education was gradually extended to eight years and later became uniform throughout the country.

The General Law on Schools in 1958, and the Law on Universities and the Resolution on Vocational Training in 1960, introduced further reforms into the school system. The vocational and technical secondary schools attained equal ranking with the general education schools, replacing the former privileged position of the gymnasium as the sole stepping-stone to the university. The vocational schools increased in number, type and capacity, attracting the majority of the nation's youth.

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[15] U.S. Joint Publications Research Service, "Illiteracy and Its Elimination," *Sociological Translations on Eastern Europe*, No. 163, JPRS Report No. 19,770, pp. 6-7. (Translated from *Jugoslovenski Pregled* (Yugoslav Review): No. 2, February 1963, pp. 79-82).

In higher education, schools, students, teachers and graduates increased ten-fold. New types of schools came into being which had not previously existed. In 1939, there were only three university centers. Today, schools of higher education are located in a great many towns and industrial centers throughout the country. Part-time study was introduced and enrollment opportunities were extended to those without formal secondary school training.

Among other changes, economic organizations entered the educational field in the training of vocational personnel. School centers were organized and adult education was developed. Greater attention was paid to the training of teachers for vocational schools and to training qualified instructors for practical training of workers.[16]

Today, one out of every five Yugoslavs attends some kind of school. About 800,000 employed persons annually attend short or long courses at workers' and peoples' universities and industrial training centers. National expenditure on education has increased from 2.4 per cent in 1956, to 5.3 per cent in 1964.[17]

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[16] "Predlog za Unapredenje Sistema Obrazovanja na Drugom Stupnju"(Proposal for the Improvement of Education on the Secondary Level), Revija Skolstva i Prosvetna Dokumentacija (Review of School and Educational Documentation), Jugoslovenski Zavod za Proucavanje Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), No. 5 (Belgrade, 1965), pp. 331-332.

[17] Basic Aims and Principles of Workers' Training, op. cit., p. 6

Literacy

Significant progress in reducing illiteracy was made after the war. Literate persons in Yugoslavia increased from 54.8 per cent in the pre-war period to 74.6 per cent in 1953, and to 80.3 per cent in 1961. The percentage of illiterates was lowest in Slovenia, and highest in those regions which, in the past, had remained longest under Turkish domination. (See Table 3)

The percentage of illiterates in 1961, was much higher among women than men: 28.8 per cent as compared with 9.9 per cent. As might be expected, the largest number of illiterates were those in the upper age brackets. (See Table 4)

The struggle of the Yugoslav people to emerge from backwardness and to create a progressive and cultured socialist society has given rise to the need for qualified personnel in all branches, from engineering and medicine to law, economics and social services.[18] On the national level education is a pre-requisite for industrialization and technological and social progress; for the individual it is the key to personal advancement, to a higher standard of living and to better employment opportunities.[19]

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[18] Jovan Djordjevic, "Universities in Yugoslavia," Information Service Yugoslavia, (Belgrade: 1955), p. 1.

[19] Phyllis Auty, Yugoslavia, (New York: Walker and Co., 1965), p. 190.

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Table 3.--Illiterate Population Age 10 and Over in 1953 and 1961 by Republic

Republics	1953		1961	
	Illiterates (in thous.)	% of total popul.	Illiter. (in thous.)	% of total popul.
Serbia	1,559	27.9	1,341	21.9
Vojvodina	181	12.9	162	10.6
Kosmet	315	54.8	274	41.1
Serbia Proper	1,063	20.5	906	23.0
Croatia	522	16.3	412	12.1
Slovenia	32	2.7	23	1.8
Bosnia-Hercegovina	853	40.2	773	32.5
Macedonia	343	35.7	256	24.5
Montenegro	90	30.1	76	21.7
YUGOSLAVIA	3,404	25.4	2,881	19.7

SOURCE: *Statisticki Godisnjak SFRJ 1964*, *op. cit.*, p. 354. See also: U. S. Joint Publications Research Service, "Illiteracy and Its Elimination," *Sociological Translations on Eastern Europe*, No. 163, JPRS Report No. 19,770, p. 17. (Translated from *Jugoslovenski Pregled* (Yugoslav Review): No. 2, February 1963, pp. 79-82).

Table 4.--Illiterate Population, Age 10 and Over, by Sex and Age in 1948, 1953, and 1961 (in per cent)

	1948		1953		1961	
	Male	Female	Male	Female	Male	Female
TOTAL	15.4	34.4	14.1	35.8	9.9	28.8
	(906,662)	(2,256,279)	(897,954)	(2,506,475)	(695,285)	(2,185,575)
10-19	9.5	18.7	7.2	17.3	3.2	7.2
20-34	7.1	24.1	5.5	26.2	4.5	21.4
35-64	21.1	46.5	22.0	49.6	15.5	40.9
over 65	43.1	65.3	40.5	64.9	30.2	53.6

SOURCE: Statisticki Godisnjak SFRJ 1964, op. cit., p. 84

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The Present Educational System

Education in Yugoslavia is free and open to all citizens regardless of nationality, race, sex, social origin or religion.[20] The school system is based on the following principles: The socialist social order as the basis and the decisive factor which determines the organization and character of schools and other educational institutions; the respect for the nationalities, their language and culture within the unified school system; the system of social self-management with the administration of schools and other educational establishments by teachers, students and representatives of the community; and the linking of classroom instruction with productive work.[21]

According to one of Yugoslavia's leading educators, Dr. S. Pataki, the educational system should seek to achieve the following goals:

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[20] See Article 7 of the General Law on Education in Appendix A.

[21] Milica Boskovic, "Education in Yugoslav Schools," Yugoslav Trade Unions, 14 (Belgrade: October-December 1964), p. 27.

To promote the rapid development of science, technology and the productive means of society which affect the material standard of living; to associate training with productive work; to develop new social relations--the system of self-management; to strive to bridge the gap between intellectual and manual work; to promote the total development of socialist man; to develop a new position, attitude and role of the individual personality in society--"the humanistic idea of free, all-around development of the individual personality in a socialist state", which includes physical, intellectual, moral, vocational and aesthetic training.

These goals not only create new tasks for the schools, but also influence the purpose, organization, and content of educational training. Dr. Pataki emphasizes that pedagogy is one of the "most political" studies, because through the training of new generations pedagogy serves to establish a new society and seeks to develop and strengthen socialism.[21-a]

[21-a] S. Pataki, Opca Pedagogija (General Pedagogy), (Zagreb: Pedagosko-Knjizevni Zbor, 1964), pp. 16-18.

The school system is characterized by instruction in three stages: Basic training is provided in the compulsory eight-year elementary school, followed by vocational and general education schools on the secondary level, and culminating with the colleges, advanced schools, art academies, and university training at the higher level. Each stage is complete within itself, having definite aims and a particular social role, but, at the same time, there is a close inter-relation between the stages so that a student may advance from one stage to the next with as few formal limitations as possible.[22] In addition to the regular schools, there are also institutions for pre-school training, special schools for the physically and mentally handicapped, and institutions for adult education and specialized training.

The following chart shows the structure of the Yugoslav educational system:

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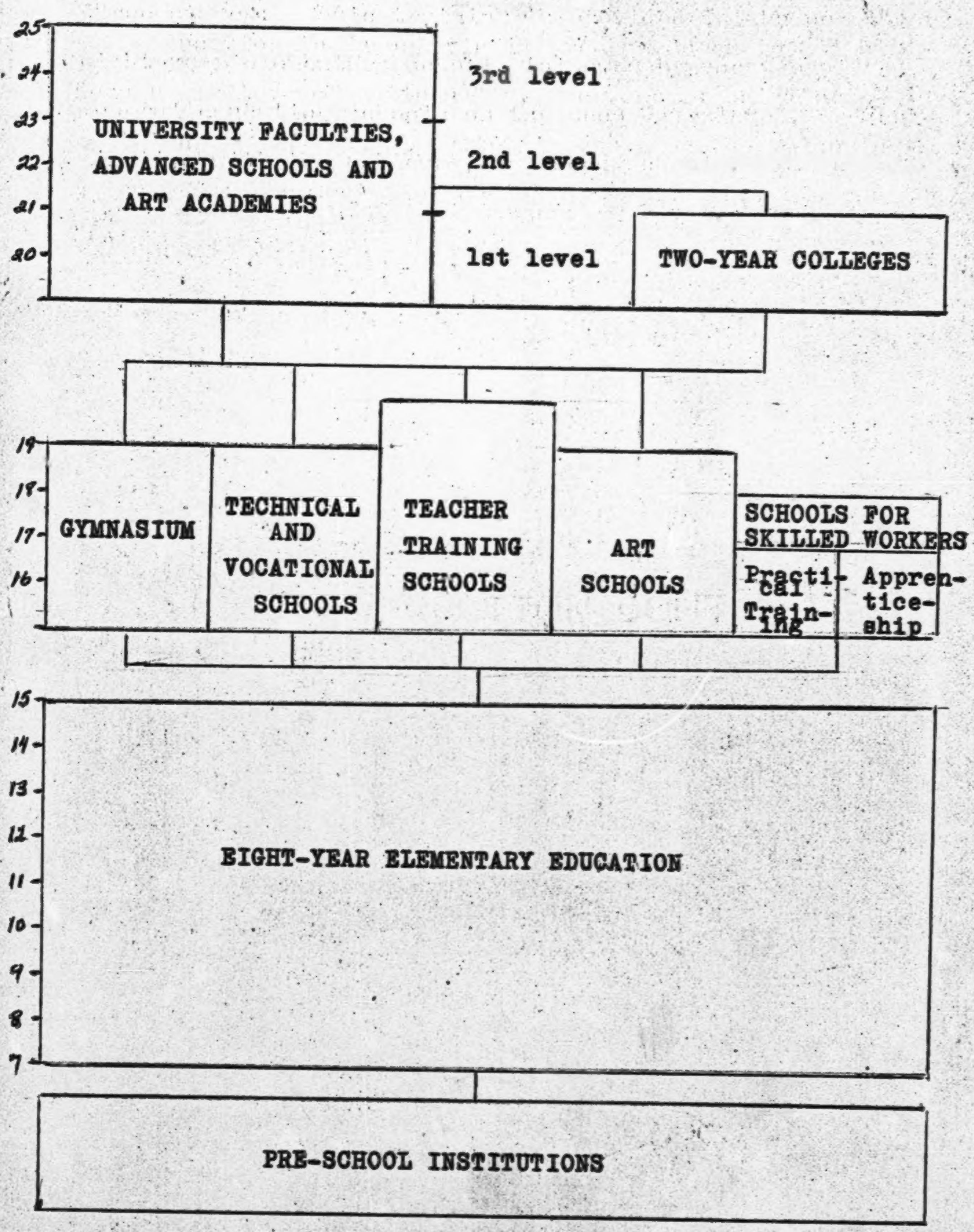
[22] Mediterranean Regional Project Country Reports: Yugoslavia, (Paris: Organization for Economic Co-operation and Development, 1965), p. 37.

STRUCTURE OF THE YUGOSLAV EDUCATIONAL SYSTEM


25
24
23
22
21
20
UNIVERSITY FACULTIES, ADVANCED SCHOOLS AND ART ACADEMIES
3rd level
2nd level
1st level
TWO-YEAR COLLEGES
19
18
17
16
GYMNASIUM
TECHNICAL AND VOCATIONAL SCHOOLS
TEACHER TRAINING SCHOOLS
ART SCHOOLS
SCHOOLS FOR SKILLED WORKERS
Practical Training
Apprenticeship
15
14
13
12
11
10
9
8
7
EIGHT-YEAR ELEMENTARY EDUCATION
PRE-SCHOOL INSTITUTIONS

Pre-school Institutions

Pre-school institutions are divided into those where students live full time (children's homes) and those where they spend a certain part of the school day (nursery schools and kindergartens). Orphan children or those lacking normal home conditions are accommodated in the children's homes. Nursery schools are for children under three years of age and kindergartens for those from three to seven years. Kindergartens are organized either for 3-4 yours, half day, or whole day sessions.[23]

Before the Second World War, there were few pre-school institutions, these principally being located in the larger towns for well-to-do families. Following the war, nursery schools were opened in smaller towns, more suited to the needs of employed parents. Factories and larger enterprises have established pre-school institutions, as have municipal assemblies, social organizations and local communities.[24]

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[23] S. Pataki, *Opca Pedagogija* (General Pedagogy), (Zagreb: Pedagosko-Knjizevni Zbor, 1964), p. 60.

[24] Jemuovic, "Education in Yugoslavia," *op. cit.*, p. 11.

The number of pre-school institutions is constantly growing, although still short of requirements. In 1965, there were approximately 1,200 such institutions attended by some 80,000 children.[25] Although this figure is more than double that of the pre-war period, future development is expected at a much faster pace so that by 1970 some 200,000 children will be attending these institutions. Proposals are now being made to establish pre-school training as an integral part of the uniform system of education.[26]

Elementary Education

Uniform eight-year elementary education is compulsory for all children between the ages of seven and fifteen. Upon completion of the elementary school, all students enjoy the same rights to further training.

Today, there are approximately three million students attending the more than 14,000 elementary schools in the country, or twice the number of students as in the pre-war period. Although significant progress has been made in recent years to include all school-age children, compulsory education has not been fully implemented, particularly in the upper grades. This has primarily been due to the great differences and degrees of development in various parts of the country. In certain areas there has been a lack of full eight-year schools, of adequate and qualified teachers and of sufficient material funds.

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[25] Duric, op. cit., pp. 28-29.

[26] Jemuovic, Obrazovanje i Reforma, op. cit., p. 73.

The percentage of school-age population attending elementary schools rose from 80.8 per cent in 1956/57 to 94 per cent at the present time. By 1970, it is expected that 97 per cent of the school age population will be incorporated in compulsory elementary education.[27] In 1964/65, 80 per cent of those who completed elementary school entered schools of secondary education.[28]

Currently, proposals are being made to drop the enrollment age for first grade from seven to six years.[29]

Secondary Education

There is a great variety of schools on the secondary level. Basic types include the gymnasium, technical and vocational schools for industry and public services, teacher training schools, schools for skilled workers and art schools.

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[27] Jemuovic, Obrazovanje i Reforma, op. cit., pp. 8-12.

[28] Report on the Educational Development in the 1964/65 Academic Year, Federal Secretariat for Education and Culture, (Beograd: 1965), p. 11.

[29] Jemuovic, Obrazovanje i Reforma, op. cit., p. 74.

The gymnasium is essentially a secondary school for acquiring general education preparatory to entering the university, but, at the same time, it provides certain knowledge necessary for various practical activities. Instruction lasts four years. Students decide on either a social science-linguistic or natural science-math course of study. There is also a "classical" gymnasium in which Latin and Greek are studied along with classical history and culture. Recently, new variations have been added: gymnasia with vocational orientation on the basis of optional subjects in the fourth year and gymnasia of a pedagogical type.

Technical and vocational schools for industry and public services provide secondary training for various trades and skills. These schools include commercial, technical, administrative, medical, industrial, agricultural, forestry, building and construction, and transport schools. The course of study lasts four years. The development of the technical and vocational schools has been the most dynamic of any particular type of school in Yugoslavia. (See Table 5). Before the war, enrollment in these schools was less than 10 per cent of the enrollment in schools of general education. At that time (1938/39), there were only 53 technical and vocational schools with 11,689 students. In 1964/65, the number had soared to 529 schools with 197,136 students.

Table 5--Enrollment by Levels, 1938/39, 1960/61, 1964/65

	1938/39	1960/61	1964/65
Primary	1,470,973	2,764,369	2,999,586
Secondary			
Gymnasia	125,098	76,676	168,727
Technical and vocational schools for industry and public services	10,689	108,023	197,136
Teacher Training Sch.	4,268	27,950	29,042
Schools for Skilled Workers	69,737	139,305	166,267
Other vocational sch. for trained personnel	135	3,391	3,417
Art schools	603	4,195	5,534
Higher			
Faculties	16,491	104,875	98,631
Advanced schools	-	2,088	6,815
Art academies	228	1,418	1,980
Two-year colleges	259	32,193	63,073

SOURCE: Statistical Pocket-Book of Yugoslavia, Federal Institute for Statistics, (Beograd: 1966), p. 98. Report on the Educational Development in the 1964/65 Academic Year, Federal Secretariat for Education and Culture, (Beograd: 1965), pp. 9-10. Statisticki Godisnjak SFRJ 1964, op. cit., pp. 311-317.

The technical and vocational schools have grown rapidly since they offer vocational training and at the same time lead to enrollment at the university and schools of higher learning. Prior to the war, pupils from the secondary vocational schools did not have the right to university education. One of the problems, however, has been that a considerable number of students do continue their students do continue their studies in schools of higher learning while there is an urgent need for them in the economy. Of those who enrolled in higher schools in 1961, thrity per cent graduated from the technical and vocational schools.[30]

Secondary teacher training schools prepare teachers for the lower elementary grades. Instruction generally lasts five years, and in some areas, only four years. These schools provide both general and vocational training and practice teaching in the upper grades. (These schools, along with other schools for teacher training, will be discussed in detail in Part III of this study). In addition to the regular teacher training schools, there are also specialized schools for teachers of elementary vocational subjects, home economics, physical education and pre-school training.

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[30] Jemuovic, "Education in Yugoslavia," op. cit., p. 20.

The number of teacher training schools and students attending them has been decreasing. These schools are gradually being abolished or are being transformed into four-year pedagogical gymnasia which are becoming preparatory institutions for the newly developed schools for the training of elementary teachers on the higher level--pedagogical academies.

Schools for skilled workers are divided into schools for practical training and schools for apprentices. Practical training schools prepare skilled workers for trades in various branches of the economy (wood processors, cooks, waiters, metal workers, mechanics, electricians, lythographers, etc.). In addition to theoretical training, practical education is provided in specially organised workshops. Apprenticeship schools train young people who have contracted with an enterprise to learn a particular trade. Theoretical training is provided in school, usually twice a week. The remaining time is devoted to practical training according to a specific program determined by the enterprise and under the guidance of skilled workers. Education in the practical training and apprenticeship schools generally lasts three years, and under certain conditions allows students to continue their studies in schools of higher learning.

In addition to these schools, industrial enterprises have established their own schools to train workers. In 1960, the Federal Assembly passed a Resolution on the Training of Vocational Personnel which authorized industrial enterpirses to establish, out of their own funds, centers, schools or other institutions for the training of scientific and technical manpower. Economic organizations entered the educational field because the formal educational system was not supplying for industry adequate personnel. Pupils are trained at all educational levels from semi-skilled workers to first-level engineers.[31] In 1960/61, thirty-five educational centers were organized. The following year their total number was 139 with 53,848 pupils. And in 1963/64, the number of educational centers grew to 186 with 99,032 students.[32]

Art schools train students for various artistic vocations, for teaching and for other cultural fields. The most numerous schools are those of music, ballet, theater arts and applied arts.

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[31] Country Reviews: Yugoslavia, (Paris: Organization for Economic Co-operation and Development, 1962, p. 18. Jemuovic, "Education in Yugoslavia," op. cit., p. 22.

[32] Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 321.

Other vocational schools for trained personnel include some administrative and medical schools for lower grade staff. Instruction is of short duration, usually one to two years. These schools do not provide possibilities for further training, since they do not provide enough general education.[33]

Enrollment in secondary schools has nearly doubled in the last ten years, while the percentage of school age population (16 to 19 age group) has increased from 16.5 per cent to 35.1 per cent.[34] Vocational training has assumed a primary role replacing the former emphasis on general education and the privileged position of the gymnasium.

Current Problems in Secondary Education

Although considerable gains have been made in secondary education during the post-war period, and particularly during the last ten years, the number of secondary graduates has been relatively low. While the desired ratio of secondary school graduates to those of higher education is 4 to 1, it is presently only 2 to 1. The economy is in great need of secondary trained personnel; only 10.6 per cent of the present labor force have had secondary education.[35]

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[33] Yugoslav Survey, Vol. VI, no. 23, Belgrade: Federal Secretariat of Information, October-December 1965, p. 3370.

[34] Yugoslav Survey, Vol. VII, no. 24, Belgrade: Federal Secretariat of Information, January-March 1966, p. 3511.

[35] Jemuovic, Obrazovanje i Reforma, op. cit., p. 78.

Secondary schools also face other problems: There is a lack of staff and facilities to accommodate the ever-increasing number of children who yearly graduate from elementary schools. It is felt that curricula, still organized along classical lines, should be more practically organized to prepare youth for immediate employment. The secondary schools are also very loosely related to one another and lack uniformity and coordination. Standards vary among the schools even in the training for the same vocation, causing difficulties when students enter employment or go on to the university. Enrollment in the various types of schools on the secondary level is disproportional, most students being enrolled in the technical schools. The technical schools, originally designed as terminal schools, find that fifty to seventy per cent of its students continue their studies in schools of higher learning.[36] There is also a high drop out rate and a great number of repeaters.[37]

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[36] Revija Skolstva i Prosvetna Dokumentacija, op. cit., pp. 332,337,338.

[37] Yugoslav Survey, Vol. VI, no. 23, op. cit., p. 3376

Higher Education

Schools of higher learning registered the most dynamic growth in the post-war period. From only 26 schools with 16,978 students in 1938/39, there are today more than ten times as many schools with some 180,000 students.[38] In the period 1956/57 to 1964/65, the percentage of school-age population in the 20-24 age group attending higher education institutions rose from 2.1 to 4.5 per cent.[39] By 1970, it is expected to reach 6 per cent.

Institutions of higher education are open to all citizens who satisfy admission requirements, irrespective of their educational background. Previously, only graduates of the gymnasium were accepted. Today, schools of higher education accept graduates from vocational schools and workers who have not completed secondary training. One-third of the number enrolled in schools of higher learning are part-time students, who work and study at the same time.[40]

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[38] "Increase in Students at Yugoslav Universities," Yugoslav News Bulletin, IV (February, 1966), p. 6.

[39] Yugoslav Survey, Vol. VII, no. 24, op. cit., p. 3511.

[40] Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), p. 11.

The aims of university education are to "train highly qualified experts, to introduce students to the methods of scientific work, to educate students as conscious citizens of the socialist community, to train new young scientists and research workers and teachers, to organize research, to advance science through their cooperation with economic, cultural and other social institutes and organizations in the country and abroad, and to help promote the country's economic, cultural and social development."[41]

Schools of higher education (which are discussed in detail in Part II of this study) include the university faculties, advanced schools, art academies and the two-year colleges. Education is divided into three levels: The first, covers the two-year colleges and the first two years of university training; the second level covers the remaining two to three years of the university, while post-graduate studies make up the third level. Each level is complete within itself, offering a certain degree of learning. Regular university education includes the first two levels and generally lasts four years, while in some fields, medicine in particular, the course is five to six years.

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[41] Boskovic, op. cit., p. 31

Faculties, or "Fakulteti", are departments or colleges of a university (faculty of law, faculty of medicine, faculty of economics, etc.). Three of more may unite to form a university or they may exist independently. For example, the Faculty of Law in Split is not affiliated with Zagreb University. The university is, in fact, only a representative body or community of faculties. The task of the university is to coordinate the work of the faculties and to deal with matters of common interest.[42] Studies generally last four to five years. Most faculties offer post-graduate or third level studies.

Advanced Schools (visoke skole) differ from faculties in that they cover narrower, more specialized fields (i.e. the Advanced School of Industrial Pedagogy, the Advanced School of Physical Education). Degrees obtained in these schools are recognized as equal to diplomas received at corresponding levels of the university faculties. Studies last four years generally and third level studies may be organized. These institutions may exist independently or may join a university.

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[42] Filipovic, Studies, op. cit., pp. 34-35.

Art Academies (Umjetnicke Akademije) are institutions of higher learning in the fields of art, music, theater arts and applied arts. These schools train artists for their respective fields and teachers for certain subjects. Studies are usually four to five years in duration.

Two-Year Colleges (Vise Skole) are a new feature of the educational system. They prepare students for work in industry and public services, and train teachers for the elementary school. The colleges were created in response to the needs of industry and social services for personnel with training above the secondary level.[43] These schools may organize independent programs of study or provide the same first level course as in the advanced schools and faculties. Studies last two years. Graduates may continue studies at the second level of a corresponding advanced school or faculty. In some cases, it is necessary to pass additional examinations. Before the war, there were only two such schools with 259 students. In the 1964/65 school year the number had increased to 139 schools with an enrollment of 63,073.

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[43] Mediterranean Regional Project Country Reports: Yugoslavia, op. cit., p. 16.

Adult Education

Parallel with regular education, efforts have been made to improve the general and technical education of adults. Training is offered both in regular schools and in special institutions whose sole purpose is the promotion of adult education.

Schools for adults include the following:[44]

(a) Schools for elementary general education provide training on the elementary level and last two to three years.

(b) Schools for Workers are secondary schools for adults which provide general, economic and political education.

(c) Schools for Rural Youth provide general, vocational and technical education. Programs in these schools vary depending upon the former level of training of the students. These schools have no real status. Some programs are general, some vocational.

(d) Worker's Universities provide general, vocational-technical, socio-economic and political education of workers. Training is primarily organized into long and short courses and seminars, and given in schools and centers for education.

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[44] Pataki, op. cit., p. 70.

(e) People's Universities provide general-cultural and socio-political education of citizens, keep citizens informed of recent developments in technology and science, and organize courses in foreign languages and vocational education. Both the Worker's and People's Universities organize seminars to help workers prepare for entrance exams to the schools of higher learning.

(f) Education Centers for Workers are organized by the economic organizations to improve the process of production and the system of management of the economic enterprises.

(g) Political schools are organized by social and political organizations: The Communist Party, Socialist Alliance, the Confederation of Trade Unions, People's Youth, etc.

Proposals to Reorganize Secondary Education

At the present time, proposals are being made to reorganize the system of secondary education to better prepare young people for early entrance into employment and to more adequately prepare them for further study.

Under the proposed system, secondary education would be divided into two phases: The first, a preparatory one, and the second, the terminal phase. The first phase, for all those who finish elementary schools, would last two years. The program of studies would include both general and practical training and be uniform for all secondary students. The second phase is designed for more specific training in a special or professional field. This phase would contain elements for further qualification through on-the-job training and self-education or for continuing studies in higher education.[45] The second phase would be divided into three branches: specialized technical training, professional technical training and the gymnasium. (See following Chart).

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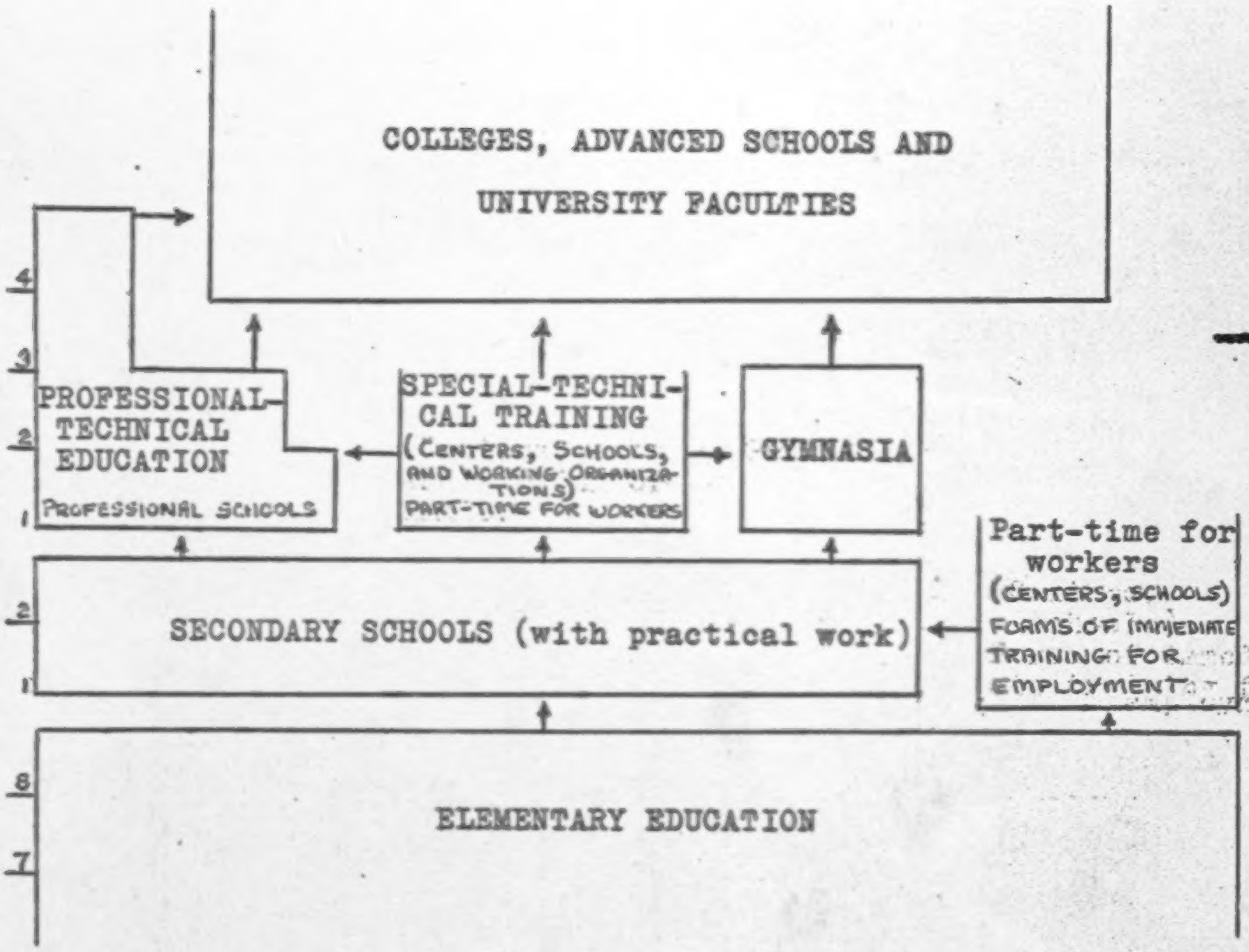
[45] Revija Skolstva i Prosvetna Dokumentacija, op. cit., p. 349.

PROPOSED SYSTEM OF SECONDARY EDUCATION


COLLEGES, ADVANCED SCHOOLS AND UNIVERSITY FACULTIES
4
3
2
1
PROFESSIONAL-TECHNICAL EDUCATION
PROFESSIONAL SCHOOLS
SPECIAL-TECHNICAL TRAINING
(CENTERS, SCHOOLS, AND WORKING ORGANIZATIONS)
PART-TIME FOR WORKERS
GYMNASIA
Part-time for workers
(CENTERS, SCHOOLS)
FORMS OF IMMEDIATE TRAINING FOR EMPLOYMENT
2
1
SECONDARY SCHOOLS (with practical work)
8
7
ELEMENTARY EDUCATION

The special-technical schools would provide a narrower field of study for industrial production. Training would be provided in working organizations or centers attached to them and in schools or other educational institutions. Studies would last from a few months to a year. Students could transfer to another type of secondary school after one year.

Professional-technical schools would provide wider theoretical and practical training for a particular vocation. Studies would last one to two years. The addition of a professional school (a type of college) to the secondary school is also under consideration. In this way, the secondary school would be tied together with a pedagogical academy, a higher medical school, a higher technical school, etc. The third branch of secondary schools would consist of the gymnasia.[46]

The proposed structure of secondary education will most certainly affect teacher training, for it will be necessary to provide more teachers, to organize new groups of studies in the training institutions, and to expand centers for in-service training.[47]

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[46] *Ibid.*, pp. 356-357.

[47] *Ibid.*, pp. 368-369.

Women in Education

There has been a steady gain in the percentage of women attending all types of schools. In 1938/39 there were 3,965 women enrolled in schools of higher education. By 1954/55 the number had grown to 21,776, and ten years later to 53,553. The latest figures show that 31.4 per cent of the students in higher education are women (compared with 20.6 per cent in the United Kingdom)[48] and a much higher percentage in the teacher training schools. (See Table 6)

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[48] Auty, op. cit., p. 191.

Table 6--Female Population in Various Types of Schools, 1938/39 and 1963/64

Schools	1938/39			1963/64		
	Total	Women	% Women	Total	Women	% Women
Elementary Schools	1,470,973	626,458	42.5	2,980,220	1,389,302	46.6
Technical and other Secondary Vocational Schools	10,689	4,190	39.7	171,586	84,561	49.3
Gymnasium	125,098	43,410	34.7	141,738	73,039	51.5
Teacher Training High Schools	4,268	1,852	43.4	28,716	17,459	60.7
University and Higher Schools	16,978	3,956	23.3	170,499*	53,553*	31.4

*Figures are given for 1964/65

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), pp. 319, 320, 324.

National Minorities (Nationalities)

Education in Yugoslavia is given in given in twelve languages. These are the three languages of the Yugoslav peoples: Macedonian, Slovenian and Serbo-Croatian, and the nine languages of the national minorities (or nationalities):[49] Bulgarian, Czech, Italian, Hungarian, Rumanian, Slovak, Ruthenian, Shiptar, and Turkish. In the post-war period, the right of minorities to attend schools with instruction in their mother tongue became a constitutional principle. Pupils in these schools enjoy the same rights as pupils in other schools.[50] In addition to their own language, pupils in the minority schools are required also to study one of the Yugoslav languages.

In the pre-war period, there were only five secondary schools with instruction in the languages of the minorities with a total of 1,096 students. In 1965, this number had grown to 123 schools with 18,395 students--a remarkable gain in two decades following the war. The task of establishing these schools in the post-war period was a difficult and complex one, particularly because of the lack of university trained teachers.[51]

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[49] Since the enactment of the new Yugoslav Constitution in 1963, the formerly used term "national Minorities" has been replaced by the new term "nationalities" since these groups are considered equal to all other Yugoslav citizens.

[50] "National Minorities in Yugoslavia," op. cit., p. 3

[51] Janosi, op. cit., pp. 27-29.

The following tables show the development of the schools for the national minorities: (insert Tables 7 and 8)

A small number of pupils belonging to the nationalities obtain their elementary training in languages of the Yugoslav peoples. This is due to the intention of parents to gradually prepare and enable their children for further training at secondary schools, and particularly at higher schools, where the working languages are mainly those of the Yugoslav peoples. The transfer of pupils from schools for the nationalities to schools with instruction in Serbo-Croatian, Macedonian and Slovenian generally begins in the fifth grade. In cities and larger villages, 15 to 20 per cent of the pupils make this change.[52]

Textbooks and literature in the languages of the national minorities are provided by social organizations and publishing houses in cooperation with the administration of the constituent republics and the Autonomous Provinces.[53] A certain number of textbooks dealing with natural sciences, math, and physics are imported from the countries of origin of the national minorities.[54]

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[52] Janosi, Ibid., p. 24.

[53] Ibid., p. 22

[54] "National Minorities in Yugoslavia," op. cit., p. 4.

Table 7--Schools for National Minorities (Nationalities), 1939 and 1965

	Elementary School		Vocational School		Gymnasia	
	1939	1965	1939	1965	1939	1965
Bulgarian	--	86	--	--	--	1
Czechs and Slovaks	42	42	--	2	1	1
Italian	5	28	--	3	--	5
Hungarian	183	239	1	33	2	7
Rumanian	33	34	--	1	1	1
Shiptar	--	935	--	48	--	15
Turkish	--	60	--	3	--	3
Ruthenian	3	4	--	--	--	--
	266	1,428	1	90	4	33

SOURCE: Rodoljub Jemuovic, Obrazovanje i Reforma (Education and Reform), (Beograd: Sedma Sila, 1966), p. 22. Although not shown in the above table, the German national minority had 228 elementary schools in the pre-war period. The statistics above show there were none in 1965. SOURCE: Osnovne i Srednje Skole 1954-55 i 1955-56 (Primary and Secondary Schools 1954-55 and 1955-56), Savezni Zavod za Statistiku (Federal Statistical Office), No. 72, (Beograd, 1957), p. 10.

Table 8--Students in Schools for National Minorities (Nationalities), 1939 and 1965

	Elementary School		Vocational School		Gymnasia	
	1939	1965	1939	1965	1939	1965
Bulgarian	--	6,574	--	--	--	287
Czechs and Slovaks	7,480	9,180	--	53	516	250
Italian	422	1,886	--	53	--	283
Hungarian	27,915	46,633	82	4,144	337	1,078
Rumanian	4,742	5,018	--	116	169	129
Shiptar	--	169,142	--	8,218	--	3,353
Turkish	--	9,203	--	196	--	235
Ruthenian	1,415	1,199	--	--	--	--
	41,974	248,835	82	12,780	1,014	5,615

Source: Rodoljub Jemuovic, *Obrazovanje i Reforma* (Education and Reform), (Beograd: Sedma Sila, 1966), p. 22.

PART II

HIGHER EDUCATION

CHAPTER I

HISTORICAL DEVELOPMENT OF HIGHER EDUCATION

Prior to the Second World War, there were three university centers in Yugoslavia--Belgrade, Zagreb, and Ljubljana. The total number of institutions for higher education numbered twenty-six. Today, there are seven university centers with 93 faculties, 17 advanced schools, and 14 art academies located in 22 cities, as well as 139 two-year colleges located in 59 industrial and cultural centers. Higher educational institutions have been established in all republics in order to afford more citizens greater educational opportunities.

Development of the Universities

EATON'S FALLS
EZ-ERASE
COTTON CONTENT

Belgrade University

The University of Belgrade was formally opened in 1905, although its beginnings can be traced back a century earlier. In 1808, a higher school offering a three year course of study was opened in Belgrade, during a period in which Serbia was involved in a war for independence from Turkish rule. The collapse of the Serbian uprising in 1813, forced the closing of the school. On October 1, 1838, a date usually given for the founding of Belgrade University, a lyceum was established in Kragujevac. Its three-year program, later extended to four, dealt primarily with philosophical subjects. In 1841, the school was transferred to Belgrade and reorganized in 1863, as a higher school with three faculties: philosophy, law and technology. In 1905, the school became a university.[1]

Until the First World War, Belgrade University had only the three faculties. Between the two World Wars, four more faculties were added: the Faculty of Medicine, the Faculty of Agriculture and Forestry, the Faculty of Theology and the Faculty of Veterinary Medicine. On the eve of the Second World War, the University of Belgrade had 9,300 students and 334 teachers.[2]

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[1] University in Socialist Yugoslavia, (Belgrade: National Commission of the FPRY for UNESCO, 1955), pp. 57-58.

[2] Milojko Drulovic, "Fifty Years of the University of Belgrade," Jugoslavia, 13 (1957), p. 30.

During the Second World War, the University of Belgrade suffered heavy damage and many of its teachers perished. Only 160 teachers returned following the war. The university was faced also with the difficult task of reconstruction and of meeting the new demands for the industrialization of the country. In the last two decades the university has had a tremendous growth. In 1964/65 Belgrade University numbered 26 faculties (including two extra-mural departments) and had an enrollment of over 40,000 students.

The University of Belgrade is not located in the capital city alone, but has faculties in various parts of the country. The following are the university faculties and their locations:[3]

Belgrade:

- Philosophy
- Arts and Humanities
- Natural Science-Math
- Law
- Agriculture
- Forestry
- Medicine
- Veterinary Medicine
- Stomatology
- Pharmacy
- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Transport Engineering
- Technology
- Geology and Mining

Bor:

- Mining and Metallurgy

Nis:

- Law and Economics
- Medicine
- Engineering

Pristina:

- Arts and Humanities
- Law and Economics
- Engineering*

Titograd:

- Economics
- Engineering

Kragujevac:

- Economics
- Mechanical Engineering
  (Both are extra-mural departments of Belgrade faculties)

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[3] Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), pp. 4-5.

*See page 43-a

*FOOTNOTE: An engineering faculty, as part of Belgrade University, was opened on December 10, 1965 in Pristina, the major town of the Yugoslav province of Kosovo-Metohija. This province, which is inhabited by approximately 1,100,000 people, lies in southeast Yugoslavia. The people are chiefly Shiptars. Until the end of the Second World War, the province was one of the most backward areas in Yugoslavia. During the last few years it has undergone dynamic development. The Engineering Faculty brings the total number of faculties in the province to three. SOURCE: "New Engineering Faculty in Pristina," Yugoslav News Bulletin, IV (December 1965), p. 4.

MILLERS FALLS
EZERASE
COTTON CONTENT

Zagreb University

There has been an uninterrupted tradition of higher education in Croatia dating back to the Seventeenth Century with the establishment of an Academy of Philosophy and Theology on the premises of the first Jesuit secondary school in Zagreb. In 1669, Leopold I issued a decree which conferred upon the academy all rights and privileges enjoyed by the Austrian universities. In 1776, Maria Theresa elevated the Jesuit Academy to the rank of the Royal Academy of Sciences (Regis Scientiarum Academia) which, in addition to the faculties of philosophy and theology included the faculty of law. Later the Academy was dissolved and in 1874, the University of Zagreb was established. While Croatia was part of the Austro-Hungarian Empire, many difficulties were encountered in expanding the university and in founding new faculties.[4] Prior to the Second World War, Zagreb University had eight faculties; in 1964/65, there were 24 faculties with one extra-mural department.

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[4] *University in Socialist Yugoslavia*, op. cit., pp. 59-60.

Filipovic, *Studies*, *op. cit.*, p. 5.

The faculties of Zagreb University and their locations are as follows:[5]

Zagreb:

- Philosophy
- Natural Science and Mathematics
- Political Science
- Law
- Economics
- Agriculture
- Forestry
- Veterinary Medicine
- Medicine
- Stomatology
- Pharmacy and Biochemistry
- Architecture
- Civil Engineering
- Surveying
- Mechanical Engineering and Shipbuilding
- Electrical Engineering and Technology

The following were established in 1965:

Rijeka:

- Economics
- Medicine
- Engineering

Zadar:

- Philosophy

Split:[6]

- Electrical Engineering
- Chemistry and Technology

Osijek:

- Economics

Sisak:

- Technology and Metallurigical Engineering

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[5] Filipovic, Studies, op. cit., p. 5.

[6] There is also a faculty of law not yet affiliated with the University.

Ljubljana University

The beginnings of higher education in Slovenia date back even earlier than in Croatia. In 1595, a Jesuit College was founded to provide instruction in philosophy and theology. Following the abolition of the Jesuit Order in 1773, higher education in Ljubljana was transferred from the Church to the State and in 1792, courses in medicine and surgery were added. At the time of the French-Illyrian provinces (1809-1813), a central school with five faculties was founded which brought the system near to being a complete university. With the fall of Napoleon and the return of Austrian occupation, higher education was reduced to its pre-French era condition: the study of philosophy and theology. Austria abolished all institutions of higher education in Ljubljana after 1848, and concentrated them in German centers.

A persistent struggle for a Slovenian university was waged until the fall of the Austro-Hungarian monarchy and the advent of the new Yugoslav state in 1918. On July 23, 1919, a university with four faculties was established in Ljubljana.

During the Second World War, the activities of the university were reduced to a minimum and finally ceased to function in November 1943. The University reopened in May, 1945.[7]

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[7] Marijan Filipovic, *Higher Education in Yugoslavia*, (Beograd: Jugoslavija Publishing House, 1962), p. 12. Also: *University in Socialist Yugoslavia*, *op. cit*., pp. 62-63; Filipovic, *Studies*, *op. cit*., p. 6.

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In 1964/65, the University of Ljubljana had the following nine faculties:[8]

- Philosophy
- Law
- Economics
- Biology and Technology
- Medicine
- Architecture, Civil Engineering and Surveying
- Mechanical and Electrical Engineering
- Natural Sciences and Mathematics
- Technology

University of Sarajevo

Immediately following the Second World War, and parallel with efforts to eliminate the inherited economic backwardness of the country, the decision was made to found a university in Sarajevo, capital of the Republic of Bosnia-Hercegovina. A faculty of medicine was established in 1946, and the university formally was inaugurated on December 2, 1949. By 1964/65, the university had grown to include 15 faculties.

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[8] *Ibid.*

The faculties of the University of Sarajevo and their locations are as follows:[9]

Sarajevo:

- Arts and Humanities
- Natural Science
- Law
- Economics
- Agriculture
- Forestry
- Veterinary Medicine
- Medicine
- Architecture and Twon Planning
- Civil Engineering
- Mechanical Engineering
- Electrical Engineering

Zenica:

- Metallurgical Engineering

Tuzla:

- Technology
- Mining

Banjaluka:

- Engineering

Skoplje University

Another university which was established immediately following the Second World War was the University of Skoplje in the Republic of Macedonia. The University was opened on November 29, 1946, and in 1964/65, it included seven faculties: philosophy, natural science-mathematics, law, economics, agriculture and forestry, medicine, and engineering.[10]

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[9] Filipovic, Studies, op. cit., p. 6.

[10] Ibid., pp. 6-7.

The University of Novi Sad

The University of Novi Sad was established on June 1, 1960, when the three faculties which were functioning in Novi Sad for some time joined to become a university. These were the Faculty of Philosophy (founded in 1954), the Faculty of Law (founded in 1955), and the Faculty of Agriculture (founded in 1954). Presently, the University consists of seven faculties. In addition to the above mentioned faculties, there is the Faculty of Medicine, Faculty of Mechanical Engineering, and the Faculty of Technology. A seventh faculty, the Faculty of Economics, is located in the town of Subotica.[11]

University of Niš

The University of Niš (pronounced "neesh") is the newest university to be established in Yugoslavia. It was founded in 1965, in the town of Niš which is an important industrial and cultural center in the south-eastern part of the Republic of Serbia. Two branches of industry have been developing there: electronics and machine building. The steady growth and expansion of these industries required expert personnel and research workers for improving technological processes and for modernizing and increasing production. The electronics industry supported the establishment of a department of electrical engineering at the Technical Faculty in Niš and also provided financial assistance.

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[11] *Ibid.*, p. 7.

In addition to faculty facilities, lecture rooms and experimental laboratories of the factory are widely used by the students and teachers of the University of Niš. In this manner, classroom theory and practical experience are closely inter-related as students are able to observe in practice what they hear in the classroom.[12]

Approximately 18,000 full-time and part-time students were enrolled in the University in 1965. The University of Niš consists of the faculties of law, economics, medicine, dentistry and technology, and four advanced schools.[13]

Religious Faculties

Apart from the system of regular university faculties, there are three autonomous faculties of theology: the Orthodox Faculty of Theology in Belgrade (founded in 1919) and the two Roman Catholic Faculties of Divinity in Zagreb and Ljubljana (founded in 1669 and 1595 respectively). There are also six advanced Roman Catholic religious schools. All of the religious schools are managed and administered by their respective religious bodies.[14]

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[12] "University and Factory Join Forces," *Yugoslav Life*, X (December 1965), p. 8.

[13] "Recent Events," *Review* (*Yugoslav Monthly Magazine*), (December 1965), p. 13.

[14] Filipovic, *Studies, op. cit*., pp. 7-8.

The Development of Advanced Schools

The advanced schools developed following the Second World War as needs arose for a more specialized kind of training. In 1956, there was only one school of this type--an Advanced School of Physical Culture. By 1964/65, the number of schools had grown to seventeen.

As indicated earlier, advnaced schools are equal in ranking to university faculties and offer the first and second level of study. Recently, a number of advanced schools have developed and are offering post-graduate work.

In comparison to university faculties, enrollment in the advanced schools is small. In 1964/65, there were only 6,815 students enrolled.[15] The curricula of the advanced schools are often identical with those of the university faculties, and because of the tradition and prestige of the latter, it is understandable why the faculties attract more of the students.[16]

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[15] *Statisticki Godisnjak SFRJ 1965* (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), Beograd: 1965), p. 324.

[16] *Mediterranean Regional Project Country Reports: Yugoslavia*, (Paris: Organization for Economic Co-operation and Development, 1965), p. 45.

The advanced schools consist of the following:[17]

Pedagogical Academy in Maribor

Advanced School of Defectology in Zagreb

Advanced School of Industrial Pedagogy in Rijeka

Advanced Schools of Physical Education in Belgrade (affiliated with Belgrade University), Zagreb, Ljubljana and Sarajevo

Advanced Schools of Political Science in Belgrade, Ljubljana and Sarajevo (the latter affiliated to Sarajevo University)

Advanced School of Public Administration in Zagreb (affiliated with Zagreb University)

Advanced Schools of Agriculture in Osijek and Zagreb (both affiliated to Zagreb University), and in Sarajevo

Advanced Schools of Mechanical Engineering in Zagreb (affiliated to Zagreb University) and in Mostar.

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[17] Filipovic, Studies, op. cit., p. 7. Although the latest statistics show that as of 1964/65, there were 17 advanced schools, the source used herein lists only 16.

The Development of Academies of Art

Prior to the Second World War, there were four academies of art in Yugoslavia. According to the latest sources (See Table 9) there are fourteen including three extra-mural departments. Their locations are as follows:[18]

Belgrade:

- Academy of Fine Arts
- Academy of Applied Arts (with an extra-mural department in Niš)
- Academy of Music (with an extra-mural department in Novi Sad and in Niš)
- Academy of Film, Radio and Television

Sarajevo:

- Academy of Music

Ljubljana:

- Academy of Fine Arts
- Academy of Music
- Academy of Dramatic Art

Zagreb:

- Academy of Fine Arts
- Academy of Music
- Academy of Dramatic Art

The art academies in Belgrade with their three extra-mural departments have merged into the Academy of Arts which has the rank of a university.

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[18] *Ibid*., p. 8.

Table 9 --Development of Institutions of Higher Education

	1938-1939	1957-1958	1958-1959	1959-1960	1960-1961	1961-1962	1962-1963	1963-1964	1964-1965
Total	26	110	122	143	205	244	259	260	263
Faculties	20	54	55	59	78	88	93	93	93
Advanced Schools	--	1	2	7	10	14	16	17	17
Art Academies	4	11	11	11	11	11	14	14	14
Colleges	2	44	54	66	106	136	136	137	139

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 6

NOTE: Figures for 1963/64 and 1964/65 are taken from the Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), pp. 319, 320, 324. Other figures in the table are those of the Federal Secretariat for Education and Culture. These figures do not entirely agree with the Yearbook since data are taken at different times. Detached departments are included in the number of colleges beginning 1961/62.

The Development of Two-Year Colleges

Two-year colleges developed rapidly in the post-war period, particularly following the passage of the General Law on Universities in which colleges were included in the system of higher education and given the status of first level university training. The fact that instruction time is relatively short and enrollment is extended to both full and part-time students, and to those without formal training, no doubt explains the great popularity of these schools.

Prior to the Second World War (1938/39) the only two such schools were teacher training colleges. Today, because of the pressing need for many kinds of trained personnel, these schools have expanded in number and variety. (See Tables 10 and 11).

Table 10--Development of Two-Year Colleges

Year	Schools	Total Students	Women	Full-time Students	Full-time Women
1938/39	2	259	148	259	148
1959/60	66	19,286	6,854	12,032	4,472
1960/61	106	32,193	9,487	15,179	4,543
1961/62	131	40,898	12,136	17,872	4,896
1962/63	139	47,782	14,399	21,374	6,015
1963/64	137	53,381	16,353	24,808	7,195
1964/65	139	63,073	20,184	25,845	7,550

SOURCE: Statisticki Godisnjak SFRJ 1964 (Statistical Yearbook of SFRY 1964), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1964), p. 316. See also: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 324. Visoke Skole 1961/62 i 1962/63 (Higher Schools 1961/62 and 1962/63), Savezni Zavod za Statistiku SFRJ (Federal Statistical Office of SFRY), (Beograd: 1965), p. 10.

Table 11--Enrollment in Various Types of Two-Year Colleges, 1964/65

Types of Schools	Number of Schools	Total Students	Total Women	Full-time Students	Full-time Women
Pedagogical	39	20,181	9,129	10,528	4,248
Technical	36	10,325	890	5,290	528
Agricultural	11	1,635	125	1,069	87
Transport	6	966	67	792	24
Economics	23	17,875	6,248	4,340	1,281
Social-Political Science	2	804	74	362	32
Law and Administration	7	6,605	1,459	1,330	292
Medical	7	1,459	978	772	509
Social Workers	5	1,704	968	803	478
Social Insurance Employees	1	346	101	125	32
Personnel Managers	2	1,173	145	434	39
Totals	139	63,073	20,184	25,845	7,550

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 324.

The 139 colleges in 1964/65 which were located throughout the country included the following types:[19]

Pedagogical academies and colleges
Vocational and special teacher training schools
Schools of social and political science
Administrative schools
Schools for personnel managers
Schools for social workers,
Economic schools
Schools for foreign trade
School for hotel management
School for bookkeeping and finance
Agricultural schools
Medical schools and schools of dentistry
Technical schools
Mechanical engineering schools
Schools of civil engineering
School of leather technology
Schools of chemistry and technology
Schools for shoe manufacture
Transport schools
Maritime schools
Schools for senior post-office personnel

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[19] *Ibid.*

CHAPTER II

QUANTITATIVE DEVELOPMENT OF HIGHER EDUCATION

In the period from 1939 to 1965, the number of higher schools, together with their students, teachers, and graduates, increased more than ten times. The 26 higher schools in 1938/39 grew to 263 institutions by 1964/65. As shown in Table 9, the two-year colleges grew at a faster rate than any of the other schools.

In the same period, the number of students increased from 16,978 to 170,499, teachers from 1,204 to 15,749, and graduates from 2,594 to 27,312. In the decade prior to the Second World War (1930-1939), the higher schools graduated 19,393 students, of which 4,240 were women. In the ten year period from 1954 to 1964, institutions of higher learning produced 162,579 graduates, of which 47,612 were women.[1]

Enrollment

The great majority of students in schools of higher education are enrolled in university faculties and two-year colleges; only a small percentage (five per cent) attend the advanced schools and the art academies. (See Table 12).

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[1] Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), Beograd: 1965), pp. 327-329.

Table 12-- Growth and Enrollment of Students in Schools of Higher Education

Year	Faculties	Advanced Schools	Art Academies	Colleges
1956/57	60,246	292	1,320	9,994
1957/58	69,087	303	1,394	12,098
1958/59	76,904	464	1,377	16,145
1959/60	82,927	1,161	1,412	19,286
1960/61	104,875	2,088	1,418	32,193
1961/62	112,005	3,461	1,646	40,898
1962/63*	106,225	4,268	1,817	47,782
1963/64*	99,056	6,177	1,981	53,381
1964/65*	98,631	6,815	1,980	63,073

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 15.

*NOTE: Data for 1962/63, 1963/64, 1964/65 are from Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFTY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 324.

The greatest increase in enrollments took place following the 1959/60 school year after a series of reform measures had been implemented. (These reforms are discussed in the following chapter). In 1956/67, there were 61,858 students in faculties, advanced schools and art academies. By 1964/65, the number had almost doubled--to 107,426 students. Much more spectacular was the increase of students in the two-year colleges when, during the same period, the number of students rose from 9,994 to 63,073.

Graduates

The number of graduates in schools of higher learning has been increasing yearly, particularly following the introduction of level studies in 1960. In 1961, there were 17,363 graduates. By 1964, the number had increased to 27,312. (See Table 13).

In 1964, almost half of all graduates (12,223 out of 27,312) were from the second level at faculties. The first group to graduate from first level studies numbered 3,175 students in 1962. Of this group 3,074 were from faculties and 101 from advanced schools; 324 were part-time students.

Table 13--Graduates in Schools of Higher Education

Year	Total	Faculties	Advanced Schools	Art Academies	Two-Year Colleges	First-level Faculties, Adv. Schs. & Art Acad.
1930-1939	19,393	18,504	-	231	648	-
1954-1964	162,579	98,062	2,729	2,474	45,887	13,427
1939	2,594	2,473	-	29	92	-
1957	8,392	6,340	51	197	1,804	-
1958	10,206	6,907	44	165	3,090	-
1959	12,220	8,306	47	205	3,662	-
1960	14,928	9,974	43	231	4,680	-
1961	17,363	11,216	375	237	5,535	-
1962	22,907	12,023	660	240	6,809	3,175
1963	25,799	12,794	619	300	7,413	4,673
1964	27,312	12,223	779	298	8,433	5,579

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 329.

In terms of specialization, most graduates of the second level in faculties in 1962 had majored in the area of social sciences, while those who graduated from the first level in faculties were in the area of technical sciences.[2] (See Tables 14 and 15).

In view of the general needs of the Yugoslav economy for scientific-technical personnel, the low numbers graduating from faculties in these areas is a matter of concern. In the agricultural faculties, there is an uneven distribution of students in various fields of study which does not correspond to the needs of production. In addition, most students continue studies on the second level as the economy does not show much interest in the type of graduate which is trained at the first level.[3]

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[2] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 19.

[3] Jugoslovenski Standardi U Univerzitetskoj Nastavi (Yugoslav Standards in University Education), Zajednica Jugoslovenskih Univerziteta (Association of Yugoslav Universities), (Beograd: 1964), p. 167.

Table 14--Graduates of Faculties by Subject Areas (1962)

Social Sciences:	6,009	Technical:	2,763
Economics	1,595	Architecture	494
Law	1,902	Civil Engineering	455
Philosophy	1,810	Mechanical	589
Natural-Science Math	702	Transport	11
		Electro-Technical	461
Agriculture-Forestry and Veterinary Science:	1,519	Chemistry-Technology	492
Agriculture	982	Geology	37
Forestry	335	Mining	181
Veterinary Science	209	Food-Technology	54
Medical:	1,725	Metalurgy	23
Medical	1,338		
Dentistry	238	Total Graduates	12,023
Pharmacy	149		

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 154.

Table 15--Graduates of First-Level Studies in Subject Areas in Faculties and Advanced Schools (1962)

Faculties and Advanced Schools	Students	Full-Time	Part-Time
Faculties	3,074	2,774	300
Philosophy	122	112	10
Philology	17	14	3
Natural-Science Math	28	28	-
Biotechnical	8	8	-
Law	385	227	158
Economics	627	538	89
Mechanical	509	507	2
Electro-Technical	267	266	1
Civil Engineering	215	212	3
Transport	24	24	-
Chemistry-Technological	310	303	7
Agricultural	536	511	25
Forestry	26	24	2
Advanced Schools	101	77	24
Total	3,175	2,851	324

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 155.

Enrollments by Year of Study

Of the total number of students enrolled in schools of higher education (170,499 in 1964/65), over half are enrolled in the first year of studies, and a little more than 15,000 in the fourth and fifth year of studies. Between the first and second year, enrollments drop considerably (from 95,744 to 38,901). First-year enrollments show a yearly increase in all schools of higher education except in university faculties. The decrease was largest at the University of Zagreb. This was due to limitations on enrollment, more students enrolling in the colleges, and fewer part-time students.[4] (See Table 16).

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[4] *Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva*, *op. cit*., p. 85.

Table 16--Enrollments by Year of Study in Various Types of Higher Schools

	Total Students	Year of Study I	II	III	IV	V
TOTALS						
1962/63	160,092	82,590	38,874	20,447	15,928	2,253*
1963/64	160,595	85,203	38,159	20,384	15,151	1,698*
1964/65	170,499	95,744	38,901	20,027	13,818	2,009
Faculties						
1962/63	106,225	46,610	23,274	19,010	15,223	2,108*
1963/64	99,056	42,423	22,040	18,685	14,349	1,559*
1964/65	98,631	44,841	20,553	18,262	13,068	1,907
Art Academies						
1962/63	1,817	587	472	306	307	145
1963/64	1,981	605	575	377	285	139
1964/65	1,980	605	497	442	334	102
Advanced Schs.						
1962/63	4,268	1,865	1,135	870	398	-
1963/64	6,177	3,231	1,233	1,196	517	-
1964/65	6,815	3,448	1,701	1,250	416	-
Colleges						
1962/63	47,782	33,528	13,993	261	-	-
1963/64	53,381	38,944	14,311	126	-	-
1964/65	63,073	46,850	16,150	73	-	-

*Note: Also included are students in the sixth year of studies: 587 students in 1962/63 and 103 students in 1963/64.

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 325.

Duration of Studies

Although the number of graduates produced by schools of higher learning has steadily increased, there is still a large number of students who either do not finish studies on time, drop out of school, or acquire the status of "absolvents" (those who have met all requirements but have not taken their final exams). The problem of higher education is not one of increasing the number of schools and enrollments, but of improving the organization of education, its quality and modernization in order to reduce dropouts and to improve the effectiveness of studies.[5]

The average duration of studies, particularly at faculties of technical and medical sciences, is considerably longer than the prescribed program. This condition has been a major factor in the high drop out rate and is an important problem in terms of the efficiency and economy of education. Some of the reasons for the long duration of studies have been attributed to extensive curricula, lack of facilities, and absense of continuous and direct contact between student and teacher.[6]

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[5] *Ibid.*, p. 22

[6] Rodoljub Jemucovic, *Obrazovanje i Reforma* (Education and Reform), (Beograd: Sedma Sila, 1966), p. 91.

According to data for Belgrade University, the average duration of studies in 1959/60 was approximately 8 years; in 1960/61 the figure dropped to 6.6 years, and in 1961/62 to 6.4 years. It has been pointed out that the figure would be smaller were it not necessary to take into account the number of "absolvents" who have taken as many as 15 years to complete examinations. Similar figures were given for Ljubljana University where the average duration of studies in 1959/60 was 7.2 years, in 1960/61 it was 7.1 years, and in 1961/62 it fell to 6.6 years.[7] The following table lists the average duration of studies by type of faculty for 1958 and 1960. (See Table 17).

In the last few years, measures have been taken to shorten the length of time needed to complete studies. These included revision of curricula and stricter rules and regulations. Some improvements have been made although the average duration of studies is still approximately 6 years. It has been suggested that a type of fee might be charged students who delay taking their exams or who have to repeat them several times. Also, in addition to scholarships and a system of crediting, there have been suggestions for stimulating study by organizing special and shortened courses for high ability students.[8]

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[7] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., p. 21.

[8] Ibid., pp. 21-23.

Table 17--Duration of Studies, 1958 and 1960

Faculties	Number of Years of Study (1958)	(1960)
Economic	7.1	6.2
Law	6.5	6.1
Philosophy	6.6	5.9
Natural-Science Math	6.7	6.4
Mechanical	9.2	7.2
Electro-Technical	8.3	7.0
Agricultural	7.2	6.1
Medical	8.6	8.0

SOURCE: *Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva* (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 21.

Dropout and Retension of Students

Approximately one-half of the full-time students in universities complete their studies. The proportion in the colleges is somewhat better (65 per cent) where the duration of studies is shorter.[9] The drop-out rate in the first years of higher education is very high, particularly between the first and second semester, and also between the first and second year. (See Table 18).

According to Table 18, only 40.6 per cent of the first semester students in faculties enrolled in the third semester of studies. Reasons for the low yield have been attributed not only to the results of the rapid expansion of schools, but also to inadequacies in the instructional program. The general reduction of studies at universities from 5 to 4 years has often been made without corresponding changes in curricula, thus forcing students to learn as much as before, but in a shorter period of time, causing many to drop out of school.[10]

The drop-out problem is of particular concern when one considers that the cost of training a university student is three times that of a secondary school pupil and 9 times that of a primary school pupil.[11]

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[9] *Mediterranean Regional Project Country Reports: Yugoslavia*, (Paris: Organization for Economic Co-operation and Development, 1965), p. 18.

[10] *Ibid.*, p. 56.

[11] *Ibid.*, p. 19.

Table 18--University Retension Rate

Universities	1960/61				1961/62			
	1st Sem.	2nd Sem.	% 1st Sem. in 3rd Sem.	% 2nd Sem. in 3rd Sem.	1st Sem.	2nd Sem.	% 1st Sem. in 3rd Sem.	% 2nd Sem. in 3rd Sem.
Belgrade	100	87.8	49.7	56.6	100	84.4	36.2	41.8
Novi Sad	100	89.0	56.2	63.2	100	81.7	48.6	59.5
Zagreb	100	88.8	51.3	57.8	100	78.4	30.0	48.5
Ljubljana	100	90.8	62.9	69.3	100	96.9	48.6	50.2
Sarajevo	100	89.1	68.2	76.7	100	90.5	53.2	58.8
Skoplje	100	69.5	62.9	51.4	100	74.4	48.5	65.3
Total	100	86.9	54.3	62.5	100	83.6	40.6	48.5

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 18.

Enrollments and Development by Region

Institutions of higher learning are most heavily concentrated in the republics of Serbia and Croatia. Nearly half of all students in higher education attend schools in Serbia. The reason for the heavy concentration in these areas is due principally to the great differences in development and available facilities in various parts of the country. While Serbia, Croatia and Slovenia rank relatively high, Bosnia-Hercegovina and Montenegro are rated low. The lack of institutions in the latter two republics has caused a migration of students mainly to Serbia and Croatia.[12]

In Montenegro two new higher schools have recently been established bringing the total number of higher institutions in that republic to four: two faculties of the University of Belgrade (electro-technical and economic located in Titograd), the Marine School at Kotor and the Pedagogical Academy in Niksic. In 1959, there was only one higher school in the Republic.[13] The Electro-Technical Faculty was established to supply adequate staff for the hydro-electric industries in the surrounding areas, and is a good example of how economic interests influence the development of educational institutions. Problems of the Faculty are mainly ones of equipment and staff. Many teachers, particularly in the third and fourth year of studies, are from Belgrade. Some of these fly regularly from Belgrade to Titograd to give lectures.

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[12] *Ibid.*, p. 50.

[13] This was the Pedagogical College in Cetinje which in 1963, ceased to function and was transformed into the Pedagogical Academy in Niksic. (See p. 67-a for source of this footnote).

Footnote 13. (continued)

Program Razvitka Obrazovanja i Vaspitanja u Crnoj Gori za Period 1964-1970 (Program of Educational Development in Montenegro in the Period 1964-1970), Republican Secretariat for Education, Culture and Science; Institute for the Advancement of Education for the Republic of Montenegro, (Titograd: 1964), p. 52.

MILLERS FALLS
EZERASE

Approximately 6,000 Montenegrin students study in other republics while some 1,500 students study in their own republic. Although laws on higher education are being developed in Montenegro, the Republic has in the past been oriented toward Belgrade and dependent on Serbian law.

Part-time Studies

Prior to the Second World War, all students in higher education were enrolled in full-time study; presently, part-time studies have been established at almost all faculties and advanced schools in the country, allowing those who work to also attend school. In 1954/55, there were 56,933 full-time and 13,064 part-time students.[14] By 1964/65, part-time attendance had increased to 63,540 students out of 170,499 students. Part-time studies in 1963/64 were provided by 69 of the 93 faculties, 15 of the 16 advanced schools, at 6 of the 14 art academies, and at almost all of the colleges.

Until 1959/60, only the faculties of law, economics, and some faculties of philosophy admitted part-time students, and these only employed persons.[15]

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[14] Yugoslav Life, XI (June 1966), p. 7.

[15] Marijan Filipovic, Higher Education in Yugoslavia, (Beograd: Jugoslavija Publishing House, 1962), p. 37.

Beginning with the 1960/61 school year, most faculties began accepting part-time students. All persons were allowed to enroll regardless of their employment status. This included housewives, those employed in agriculture, invalids and others.[16]

To facilitate the organization of part-time studies, certain measures were undertaken: the founding of education centers in various districts or in economic or other organizations; the organization of evening, summer and correspondence courses; and the holding of permanent or occasional seminars.[17]

In 1964/65, 24.4 per cent of the students in faculties, advanced schools and art academies were part-time students, while the percentage in the colleges was 59%. (See Table 19). Most of the part-time students in faculties are enrolled in those schools which provide first-level studies.

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[16] "Reform of Higher Education," *Yugoslav Survey* (Belgrade: Jugoslavija, July-September 1960), vol. I, no. 2, p. 254.

[17] *Ibid*.

Table 19--Part-Time Students in Schools of Higher Education

	Total Part-time	% of all Students	Enrolled in 1st Semester	% of all Stu. in 1st Sem.
Faculties , Advanced Schs. and Art Academies				
1959/60	13,539	15.8	10,222	28.7
1960/61	28,413	26.2	22,637	42.8
1961/62	31,723	27.1	20,852	37.7
1962/63	27,179	24.3	14,897	30.4
1963/64*	25,396	23.6	-	-
1964/65*	26,312	24.4	-	-
Two-Year Colleges				
1959/60	7,254	37.6	5,905	46.2
1960/61	17,014	52.8	13,997	59.5
1961/62	23,026	56.3	18,361	62.8
1962/63	26,474	55.8	19,448	57.0
1963/64*	28,573	53.5	-	-
1964/65*	37,228	59.0	-	-

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 324.

Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 88.

Previously, part-time students studied at home, coming to faculties only periodically to take exams. Today, part-time students are required to spend a specified period of time studying under the supervision of a member of the teaching staff.[18]

Although part-time studies have increased significantly over the past several years, the number of part-time students in faculties, advanced schools and art academies has remained relatively stagnant. Few students regularly attend classes, take exams or finish the course. A significant number drop out at the end of the first semester. The development of part-time studies was also hindered by the fact that faculties did not adequately organize studies. Aid from industry and other institutions was also inadequate.[19]

Proposals have been made to provide part-time students with paid vacation periods immediately before and during exams and while attending required courses, to shorten work hours on days when students attend lectures, to provide for unpaid vacations for longer periods before exams, etc. The student would then be obliged to finish the course on time or return the money received if exams are not taken or courses are not attended.[20]

Faculties, communes and interested organizations will need to concern themselves with improving the organization of part-time studies. This is imperative if the country's needs for trained personnel are to be met.

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[18] Filipovic, *Higher Education in Yugoslavia*, *loc. cit.*

[19] *Aktuelni Problemi Sprovodjenja Reforem Visokog Skolstva*, *op. cit.*, pp. 91-92.

[20] *Ibid.*, p. 93.

Plans for Stablization

Further quantitative expansion of higher education has mainly leveled off. Primary concern is now being given to the internal organization of educational institutions and their linking with the economy and other activities. Efforts are being made to produce adequate staff and material facilities; to shorten the duration of studies; and, in general, to raise the over-all quality of education.

CHAPTER III

REFORM OF HIGHER EDUCATION

The entire post-war development of higher education in Yugoslavia was characterized by experimentation and a search for new and better ways of training highly qualified experts and producing them in sufficient numbers to meet the increasing demands of the economy. Currently, the economy and social services require an annual average of 20,000 to 30,000 highly trained personnel.[1] In 1959, only 9,000 highly trained technicians were being graduated yearly.[2]

During the first years following the Second World War, Yugoslav universities were producing technicians and engineers of a general character, while demands of the economy and social development required specialists of various categories and of different levels. The number of university graduates lagged considerably behind current and future requirements of the country. In addition, the average duration of studies steadily increased, and often lasted twice as long as the prescribed period.

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[1] "Increase in the Number of Experts," Articles and Abstracts from Review (Yugoslav Monthly Magazine), (Beograd: Oct. 1964), p. 1.

[2] "Reform of Higher Education," Information Bulletin About Yugoslavia, IV (September, 1959), p. 8.

In 1957, the average four-year course took seven years to complete.[3] Only 25% of the students completed their training before attaining 25 years of age; 55% of the studen completed their training between the ages of 25 and 30, while 20% completed their training after 30 years of age.[4] At the economic faculties, studies lasted 7 years, at the machinery faculty for 9 years, at the electro-technical 8½ years, and at the medical faculties nearly 9 years.[5] An analysis showed that the long duration of studies did not depend on the students alone, but on excessive curriculum programs and inadequate facilities.

A series of reform measures were undertaken which affected radically not only the quantitative development of the schools, students and graduates, but also brought about changes in the organization, administration and program of the institutions of higher learning.

A major step in the reform of higher education was made by the adoption of the General Law on Universities in 1954, and by the introduction of the principle of "social management" in all universities and faculties. The extension of higher education became especially intensive following the issuance in 1958, of the Recommendation of the Federal People's Assembly on creating better conditions for educating highly qualified personnel, the passage of the New General Law on Universities and the Resolution on Vocational Training in 1960.

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[3] "Reform of Higher Education," Information Service Yugoslavia, pp. 1-2.

[4] "Universities and High School Reform," Information Bulletin About Yugoslavia, II (August, 1957), p. 10.

[5] Univerzitet Danas (University Today), Zajednica Jugoslavenskih Univerziteta (Association of Yugoslav Universities), VI, 1. (1965), p. 26.

The Assembly Recommendation of 1958

In view of the increased demand for technicians and the inadequacy of the traditional system of higher education, the Federal Assembly in 1958, recommended: that the normal duration of studies in faculties be reduced to four years; that students be encouraged to more industriously engage in their studies; that instructional and material resources of the university be expanded and improved; that a long-range plan be elaborated for the development of universities; and, that post-graduate studies be systematically organized.[6]

In accordance with the Assembly Recommendation, the regular duration of studies was reduced at all faculties to four years (eight semesters) andto five years (or ten semesters) at medical faculties. These changes in curricula necessitated a notable reduction in the number of subjects, introduction of specialization in certain branches and the general modernization of the program of studies.[7]

Reforms of 1960

However, in spite of the implementation of the 1958 Assembly Recommendation, education at the universities, although constantly improving, did not reach the level required by the general social and economic development of the country. The rate and method of training highly qualified personnel, especially the relative number of different types of university graduates, did not prove adequate.[8]

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[6] "Reform of Higher Education," *Yugoslav Survey* (Belgrade: Jugoslavija, July-September 1960), vol. I, no. 2, p. 251.

[7] *Ibid.*, p. 252.

[8] *Ibid.*

On June 3, 1960, the Federal Assembly amended the General Law on Universities of 1954, which then became known as the New General Law on Faculties and Universities. This law effected a thorough reform of the entire system of higher education in Yugoslavia, the purpose being to supply the economy and social services with necessary personnel of various categories and levels of specialization, and to provide facilities for an ever greater number of citizens to acquire higher education.[9]

In 1960, the Federal Assembly also recommended that economic organizations join the system of education by training personnel in their own school centers. On the basis of this recommendation, known as the Resolution on the Training of Technical Personnel, economic enterprises began to open their own schools and training centers throughout the country. The centers offered not only courses in vocational training, but also courses in general education, economics, etc. By the end of the 1962/63 school year, there were some 420 such centers in the country in which approximately 250,000 employed workers were enrolled.[10]

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[9] Ibid., p. 251

[10] Djordje Vitez, "Vocational Training of Workers in Belgrade Power Industry Enterprises," Yugoslav Trade Unions, 14 (Belgrade: December 1964), p. 67.

Objectives of the 1960 Reform of Higher Education

The primary objectives of the 1960 reform of higher education were:

To broaden the network of institutions of higher education; to decentralize the authority to found them from the assemblies of the republics to the political communities, economic and other working organizations;

To facilitate the establishment of new institutions of higher education outside of the existing university centers;

To provide for the introduction, wherever possible and necessary, of three levels of study, each lasting two years, with a view to ensuring the more rapid preparation of highly trained personnel with different levels of education;

To carry out the integration of the entire system of higher education by including the colleges, in addition to faculties and advanced schools of faculty rank, in the new system of higher education and enabling graduates from these schools to continue their studies starting at the second level at the faculties (Earlier, college graduates had to begin at the first level when enrolling at the faculties);

To promote research work in all faculties and to institute third level studies (for specialization and the master's degree) as a regular form of work and, accordingly, to raise the doctor's degree to an even higher academic level;

To ensure a greater diversification of teaching, with a view to providing types of experts and specialists that best suit the requirements of the various fields of professional activity;

To improve the quality of teaching and pedagogical methods;

To promote the system of part-time studies--to make it possible for a greater number of persons to "work their way through the university";

To ensure the further democratization of enrollment at the universities by enabling anyone who is capable of following the course of study to enroll regardless of formal qualifications, thus giving a larger number of citizens the opportunity of acquiring a higher education;

To increase the responsibility of the students themselves by changing the rules and regulations governing higher education;

To enlarge the teaching staff by the opening of new posts, particularly by providing for the appointment of eminent practising experts, and to introduce a new, more liberal system of remuneration;

To provide funds for investment in the construction of new faculties and advanced schools, and for the reconstruction or expansion of the existing institutions.[11]

Results of the Reform

The adoption of the New General Law on Universities and Faculties introduced several important changes in higher education. Among these were changes in the position and interrelationship of the schools themselves, changes in curricula, enrollments, methods of study, categories and selection of teaching staff, and an increase in the number of schools, students and graduates. Among the most notable developments were the following:

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[11] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), pp.2-3. Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), pp. 41-42.

(a) University education was divided vertically into three levels and horizontally into more specialized fields. Level studies were introduced in a majority of schools and graduates of the first level in colleges were admitted to second level study at faculties. Post-graduate studies were offered by most faculties.

(b) New faculties and advanced schools were established outside the previous university centers. This relieved pressure on the old schools and enabled the admission of many students from their respective localities and districts. In 1960, faculties and advanced schools operated in eight of the largest cities; in 1964, they operated in 22 towns and cities.

(c) Part-time study was introduced in almost all faculties, advanced schools and colleges.

(d) Admission to schools of higher education was extended to all persons regardless of former educational training provided they successfully could satisfy entrance examination requirements.

(e) The right to establish institutions of higher education was broadened to include economic organizations and communes. (Several large economic enterprises in Niš, Šišak, Bor, and Zenica have faculties attached to them).

(f) Opportunities were provided to adjust the duration of studies to the term prescribed.

(g) Substantial investments were made by the Yugoslav Government and the individual republics in the development of institutions of higher education.

(h) Curricula were changed to meet new requirements of the economy.

(i) Faculties were allowed to exist independently or, in association with three or more faculties to join into a university. Faculties may also form universities according to a particular branch of learning (University of Technical Sciences, University of Social Sciences, University of Medical Sciences, etc.).

(j) In quantitative development in the period from 1959/60 to 1964/65, the number of faculties increased from 59 to 93, advanced schools from 7 to 17, art academies from 11 to 14, and two-year colleges from 66 to 139. The total enrollment for the same period grew from 105,574 to 170,499 students. While enrollment in faculties changed from 82,927 to 98,631, in advanced schools from 1,161 to 6,815, and in art academies from 1,412 to 1,980, the largest increase was registered by the two year colleges which grew from 19,286 to 63,073.

(k) In terms of graduates, all schools of higher learning produced 12,220 graduates in 1959. This figure increased to 27,312 in 1964. During the same period, graduates from faculties increased from 8,306 to 12,223, while those in the colleges grew from 3,662 to 8,433.[12]

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[12] Filipovic, Studies, op. cit., pp. 43-44; Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., p. 7; "Reform of Higher Education," Yugoslav Survey, Vol. I, no. 2, op. cit., p. 253; Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), pp. 327-330; Visoke Skole 1961/62 i 1962/63 (Higher Schools 1961/62 and 1962/63), Savezni Zavod za Statistiku SFRJ (Federal Statistical Office of the FPRY), No. 339 (Beograd: 1965), pp. 9-10.

Recommendation of the Secretariat for Education and Culture of the Federal Executive Council 1962

Because of relatively small enrollments in the faculties of mathematics and natural sciences, the Secretariat for Education and Culture in July of 1962 recommended that universities, faculties and republican councils for education undertake certain measures to stimulate studies in these fields. These measures included scholarships, loans and credits, better student housing, and other material aids for students.[13]

Problems Accompanying Reform

Although the Yugoslav system of higher education expanded rapidly following the series of reform measures, the expansion was not always accompanied by a solid organizational staff preparation nor by adequate facilities. Because of this some institutions of higher education found great difficulties in conducting regular classes.

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[13] U.S. Joint Publications Research Service. "Educational Development in 1962--Yugoslavia." Sociological Translations on Eastern Europe, No. 165. JPRS Report No. 19,857, p. 25. (Translated from Jugoslovenski Pregled (Yugoslav Review): No. 3, 1963, p. 131-135.).

While the quantitative development of schools seems to have slowed since the 1962/63 and 1963/64 school years, this does not indicate that the desired number of schools was reached, but instead is an indication that certain difficulties were encountered due to the rapid development of the system. The problem now is principally one of raising standards in existing and in newly established faculties and other higher schools, in improving facilities, in securing adequate staff, and in general, in raising the level of education.[14]

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[14] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., pp. 8-9.

CHAPTER IV

ORGANIZATION OF HIGHER EDUCATION

Prior to 1960, Yugoslav faculties offered only one level of undergraduate studies, and granted therefore only one type of diploma. Courses lasted either four, five or six years, depending upon the branch of learning. With the passage of the New General Law on Faculties and Universities in 1960, studies have been divided into three levels, making possible the training of personnel with varying degrees of specialization. Following the completion of each level of studies, the student is awarded a diploma, specifying the degree of specialization and the academic title.[1]

In comparing Yugoslav higher education to that in the United States, first level study is similar to the Associate of Arts Degree (two years of college); second level study is comparable to the Bachelor's Degree; and third level study to the Master's and Doctor's Degree.

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[1] Marijan Filipovic, Higher Education in Yugoslavia, (Beograd: Jugoslavija Publishing House, 1962), p. 20.

The Federal Law provides that instruction may be organized in three levels. Faculties which do not wish to introduce the three levels of study may provide an undivided four-year program (referred to as second level) as their form of instruction. Each faculty is required to provide second level studies, but may provide the first and third.

The duration of first and second level instruction is four years; only in exceptional cases can it be a year longer or shorter (in medicine, five years; in forestry, three years). Instruction at the first level normally lasts two years and at the third level, for at least one year.[2] Instruction at the second level may be organized as a continuation of first level instruction, or it may be organized as a four-year course. After completing first level studies, students may proceed to the next level provided they fulfill certain admission requirements (examinations, a period of practical work, satisfactory academic record at the previous level, etc.). Students who have graduated from college may enroll in second level study at the faculties. They are exempt from taking exams only in those subjects which are studies equally at both levels.

In some faculties, certain subjects are optional for first level students, but obligatory for those who wish to continue their studies at the second level.[3]

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[2] At most technical faculties, it lasts 2½ years. Source: Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), p. 15.

[3] Ibid., pp. 14-15.

Some faculties (agriculture, forestry, engineering and art academies) require the submission of a "diploma paper" which must be approved before the student is granted a diploma. At other faculties (philosophy, natural science, law) a "diploma examination" is required as the final examination; or, in some cases, the diploma is granted when the student has satisfactorily completed all final year examinations.[4]

Education in schools of higher learning is given in the form of lectures, seminars and practical work. Each student is required to spend a certain period of time (from one to six months), depending on the field of study, doing practical work in approved institutions, organizations or enterprises under the academic direction of the faculty concerned and under the guidance of the organizational unit in which he works.

The academic year begins on October 1st, and ends on September 30th the following year. The academic year has two semesters: the fall semester, which lasts from October 1st to January 15th; and the spring semester, which lasts from February 16th to June 30th. There are slight deviations from these dates at some universities.[5]

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[4] Filipovic, Higher Education in Yugoslavia, op. cit., p. 28.

[5] Ibid., p. 20.

Purpose of Level Studies

In accordance with the Resolution on the Training of Vocational Personnel (1960) the Federal Assembly proposed to the university faculties that the classical four-year program of higher education be replaced by a system of level studies in order to produce graduates with varying levels of training. To train the needed personnel for industry in the four-year institutions was both slow and expensive. Furthermore, the types of personnel needed by industry and the economy did not require full university education. In addition schools had not sufficiently differentiated their studies, particularly in the technical faculties, which forced many of its graduates into jobs where they could not make use of their training and for which they were not qualified.

The suggestion was thus made to train needed personnel in either two-year colleges or through first level study at faculties. It was also felt that this would in great measure alleviate the dropout problem in the four year schools.[6]

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[6] *Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva*, (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 27.

Introduction of the System of "Levels"

Since each level of instruction was to provide terminal education, the introduction of first level studies required the revision of curricula and the reorganization of instruction at the faculties. This reorganization of the school program became a major stumbling block, and among specialists in the field, lively discussions ensued in which diametrically opposed views were expressed. Some educators believed that if there is a system of colleges, it would not be necessary for faculties to train first level personnel. Other educators argued the acceptance of the system and suggested that the problem could be solved by simply inverting the program of studies whereby practical training subjects would be given in the first two years and theory in the last two.[7]

Acceptance of Level Studies

Within a relatively short period of time, the system of level studies was accepted by a majority of Yugoslav faculties. Of the 93 faculties in the country (1962/63), 51 adopted first level studies, 38 maintained the regular four-year program, and four faculties provided both programs. (See Table 20).

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[7] Ibid., p. 29.

Table 20--First-Level Studies, by Universities, 1962/63

Universities	Total	First Level	Undivided four-year program	Offer both first level and undivided 4-yr. program
Total	93	51	38	4
Belgrade	28	20	7	1
Novi Sad	7	6	1	-
Zagreb	26	4	21	1
Ljubljana	9	9	-	-
Sarajevo	16	7	7	2
Skoplje	7	5	2	-

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 33.

The decision to reject or accept level studies was made primarily by the university centers. At the University of Ljubljana, all faculties accepted first level studies; at Belgrade University, 21 out of 27 faculties accepted level studies. At Zagreb University, only four out of 26 faculties accepted level studies. Midway between these two attitudes is the University of Sarajevo, which has an equal number of faculties with level studies and with the undivided program.[8] In 1963/64, seven of the 17 advanced schools and nine of the 14 art academies provided first level studies.[9]

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[8] Universitet Danas (University Today), Zajednica Jugoslavenskih Universiteta (Association of Yugoslav Universities), VI, 1. (1965), p. 27.

[9] Filipovic, Studies, op. cit., p. 15.

Some schools, after inaugurating level studies, later dropped the system. At a conference of civil engineering faculties in 1962, it was decided to drop first level studies.[10] Similar action was taken by faculties of metalurgy, mining and others.

The following table shows that in 1962/63, all of the economic and natural science-math faculties had incorporated first level studies, as did 22 of the 35 technical faculties (four had both programs), and 7 of the 10 law faculties. At the medical faculties, first level studies had not been introduced, with the exception of the department of dentistry at the Medical Faculty in Ljubljana and at the pharmaceutical faculty in Belgrade.

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[10] It was felt that the systematic preparation of engineers should follow a definite pattern, beginning with the acquisition of general knowledge and ending with specialized training. The purpose of first level studies was to prepare students with specific knowledge. This would be a reversal of the normal program. Also, it was felt that students, particularly those who graduated from an academic high school, could not become expert enough in two years. Source: U. S. Joint Publications Research Service. "Reform in Higher Education." Sociological Translations on Eastern Europe, No. 237. JPRS Report No. 25,696, p. 60. (Translated from Tehnika (Technology): No. 6, 1964, pp. 1003-1004.

Table 21--First and Second Level Studies at Faculties, by Subject Areas, 1962/63

Faculties	Total	First Level Studies	Undivided four-year program	Offer both first level studies and undivided four-year program
Total	93	51	38	4
Philosophy	9	5	4	-
Natural-Science Mathematics	5	5	-	-
Law	10	7	3	-
Economics	10	10	-	-
Medical-Dentistry-Pharmacy	12	2	10	-
Agriculture-Forestry-Veterinary	12	4	8	-
Technical	35	18	13	4

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), Beograd: 1963), p. 32.

Enrollments at the First Level

In 1962/63, there were 56,692 students enrolled in the first semester at faculties, advanced schools and art acadamies. Of this number two-thirds (or 37,007) were enrolled in first level studies, while the remaining third (or 19,688) were enrolled in the undivided four-year program.[11] The universities in Sarajevo and Ljubljana registered the highest percentage of students in first level studies (87.0 and 83.4 respectively) while the University of Zagreb had the lowest with 20.2%. (See Table 22).

First level studies are most developed at the faculties of economics where 94.7% of the students are enrolled in the two-year course. Other faculties with a high percentage in first level studies are the agriculture and forestry faculties with 84.8%, and natural-science math with 76.9%, and the law faculties (including law-economics and political science) with 76.7%. (See Table 23).

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[11] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., pp. 33-34.

Table 22--Enrollment in First-Semester Studies in Faculties, Advanced Schools and Art Academies, 1962/63

Schools	Total	Enrollment First Semester First Level Studies	%	Undivided 4-yr. Program	%
Universities	53,340	34,686	65.0	18,654	35.0
Beograd	24,825	19,475	78.4	5,350	21.6
Novi Sad	4,549	3,961	87.0	588	13.0
Zagreb	10,667	2,157	20.2	8,510	79.8
Ljubljana	4,164	3,472	83.4	692	16.6
Sarajevo	4,848	2,621	54.1	2,227	45.9
Skoplje	4,287	3,000	70.0	1,287	30.0
Advanced Schools	2,751	1,887	57.5	864	42.5
Art Academies	604	434	71,8	170	28.2
Total	56,695	37,007	65.3	19,688	34.7

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 35.

Table 23 --Enrollment in First-Semester Studies 1962/63, by Types of Faculty

Types of Faculties	% in First Level Studies	% in Undivided 4-yr. Program
Philosophy and Philology	32.2	67.8
Natural-Science Mathematics	76.9	23.1
Law, Law-Economics, and Political Science	76.7	23.3
Economics	94.7	5.3
Medicine	1.8*	98.2
Dentistry	0.0	100.0
Pharmacy	56.7	43.3
Agricultural, Agricultural-Forestry	84.8	15.2
Forestry	0.0	100.0
Veterinary and Bio-Technology	26.4	73.6
Technical	69.4	30.6

*Denistry Department of Medicine Faculty in Ljubljana

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 36.

Of the 37,007 students enrolled in first level studies at faculties, advanced schools and art academies in 1962/63, 29.9 per cent were in economic faculties, 28.4 percent in technical faculties and 19.3 per cent in law faculties. Almost half of all students enrolled in the undivided four year program in university faculties (45.6 per cent) were from the University of Zagreb, less than a third (28.7 per cent) from Belgrade University and the fewest from Novi Sad University (3.1 per cent) and Ljubljana University (3.6%). With regard to part-time students registered in the first semester of first level studies, there were 17,039 students, or 46.1 per cent of the total number of students.[12]

Results and Problems of First-Level Studies

There has been considerable controversy concerning the nature and status of first-level studies. While most of those in higher education favor the multi-levels system, a considerable number have voiced opposition to it and favor re-establishing the classical four-year program of studies. In addition, there is the question of whether the two-year colleges are truly recognised as being in the main stream of higher education, or whether they are on a parallel stream serving the economy with graduates who have had two years of higher training. The general consensus seems to be that it is still too early to evaluate first-level studies and that more time is needed, both to perfect the system and to analyze it.

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[12] Ibid., p. 38.

In introducing first-level studies, several problems have been encountered:

(a) One of the basic difficulties has been the lack of agreement as to the type of graduate each institution was to produce. The exact requirements of the economy and social services were not known as no analyses had been made by economic organizations or public services as to the kind of trained personnel required. A knowledge of these requirements was necessary to adequately adapt school curricula and instruction. Programs were changed in some schools without regard to or consultation with industry and the economy. And in some cases, the levels program was introduced in places where it was not needed nor applicable.

(b) There was a question as to whether all first level graduates would find a ready place in the economy. Some fields would not accept the first-level graduate (forestry, metalurgy).

(c) The acceptance of first-level studies represented a radical reorganization of studies at faculties. In some cases, however, schools could not immediately adapt their programs or organized them in name only. There was a lack of material and financial aid and some teachers and students opposed the program. Some felt it would have been wiser to introduce level studies on an experimental basis and not to have forced the massive reorganization at universities which was necessary with the introduction of third level study.

(d) Curricula in some schools were overloaded; in other schools they were inadequate. It was difficult also to determine the subject matter and quantity of material to be included in a certain subject on the first level. In addition, there were problems in finding and preparing corresponding textbooks. Teachers found there were differences in presenting certain materials in first level studies as opposed to the undivided program.[13]

Although the major purpose of first-level studies was to secure more rapidly and more efficiently needed personnel for industry, it was found that most first-level graduates, instead of entering the ranks of the employed, would continue their education on the second level. (There was also a tendency for graduates of the colleges to continue with their education). Reasons for this were attributed to the fact that economic organizations were not prepared to take these graduates, salaries were lower, and until 1963, first level graduates were not granted shortened army service (one year instead of 18 months) as were graduates of colleges and second level studies.[14]

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[13] Ibid., pp. 39-40. Sociological Translations on Eastern Europe, No. 237, op. cit., p. 59.

[14] It is interesting to note that a significantly large number of graduate engineers and other faculty graduates do not enter employment immediately. Some await positions in larger cities or continue their education on the third level. Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., pp. 41-42.

Contrary to the general trend in the country in which approximately 80 per cent of first level-students continue their studies, only ten to fifteen per cent of the students in Maribor go on to the second level. The reason for this is that level studies, there, were created in response to local community needs. The Technical College in Maribor, which opened soon after the reform of 1960, was set up to secure and train workers for local industry. Its two-year course, however, usually lasts three years. For those graduates who desire to transfer to faculties, it is possible to do so without passing exams. Most of the students (88%) in the Technical College come from secondary technical schools, eight per cent from the gymnasium and four per cent represent those without formal training.

During the last five years, the evolution of first level studies in Maribor has been closely associated with the local industries; and one cannot help but be impressed by the dynamic development of schools there. If any area is an example of what Yugoslav higher education is trying to accomplish through level studies, then, this is certainly one which would give the observer insight into the "practical emphasis" pattern which is recommended for higher education in answer to the shortcomings of the old classical system.

There are also other results of first-level studies. Programs in the colleges and faculties tend to be the same, although colleges were organized to provide terminal programs. However, efforts to equalize the quality of instruction at all schools of first level studies has been difficult.

There is a tendency of many colleges, soon after being established to grow into faculties or advanced schools. For example, the Higher Technical-Mechanical College in Sarajevo, founded in 1957 grew into the Advanced Technical Mechanical School; the Technical-Mining College in Tuzli, founded in 1957, became the Advanced Technical-Mining School; the Teachers Vocational College in Rijeka, founded in 1953 became in 1962 the Advanced Industrial Pedagogical School; the College of Physical Education founded in 1956 in Ljubljana became in 1961/62 the Advanced School for Physical Education; and the Higher Pedagogical School (college) in Maribor, founded in 1960/61 became in 1962/63 the Pedagogical Academy of university rank, offering two level studies.[15]

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[15] Ibid., pp. 47-48.

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Passage from First to Second Level Studies

Conditions for the passage from first to second level studies vary among different schools. Some require the passing of exams, others do not. In addition, some schools require practical experience in a certain field. Belgrade University has taken the position that there should be no formal requirements unless limited by the capacity of the school. Although all faculties recognize graduation from the two-year college, most require supplementary examinations in certain areas which may not have been adequately covered in the college curriculum.[16]

Second Level Studies

There is almost the same enrollment in third year studies (the second level) under the levels system as in the undivided four-year program. In 1962/63, these percentages were 47.5 per cent and 52.5 per cent respectively. Table 24 shows the enrollment by various types of schools and according to full and part-time students.

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[16] *Ibid.*, p. 49.

Table 24.--Students Enrolled in First Semester of Second Level Studies, 1962/63

	Total Enrolled	First Sem. of sec. level studies	% of total enrolled	Fifth Sem. of undivided studies	% of total enrolled
Total:					
Full-Time	20,153	9,568	47.5	10,585	52.5
Part-Time	14,339	6,369	44.4	7,970	55.6
Faculties:					
Full-Time	18,438	8,629	46.8	9,809	53.2
Part-Time	13,219	5,786	43.8	7,433	56.2
Advanced Schools:					
Full-Time	1,494	863	57.8	631	42.2
Part-Time	900	507	56.3	393	43.7
Art Academies:					
Full-Time	221	76	34.4	145	65.6
Part-Time	220	76	34.5	144	65.5

SOURCE: *Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva* (Current Problems Accompanying the Reform of Higher Education), Savezni Secretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 51.

Problems of the Second Level

There is a need to coordinate programs of second level studies in both the divided and undivided system of studies. An important problem is also the coordination of textbooks. With regard to first level studies, the question has been raised that if these are geared primarily to train students for immediate entrance into industry, then there would be a problem of providing students for further study on the second level.[17]

Post-Graduate, or Third Level, Study

Post-graduate, or third level, study at faculties, advanced schools and art academies was introduced by the 1960 Law on Faculties and Universities. Prior to that time, unsystematic attempts were made to organize specialized courses for university graduates. These included short preparatory courses for specialization study for those leading toward the doctorate. The duration of these courses ranged from a few weeks to one or two years. Until 1960, specialized instruction remained, on the whole, unregulated. Neither republican laws nor university statutes contained provisions as to methods or duration of study, enrollment or other questions concerned with post-graduate work.[18]

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[17] _Ibid._, pp. 51-52.

[18] "Post-Graduate Study," _Yugoslav Survey_, Vol. VII, no. 25, Belgrade: Federal Secretariat of Information, April-June 1966, p. 3643.

Third-level studies are offered by faculties, advanced schools, art academies and certain independent institutions. All faculties are entitled to introduce this type of study, while other institutions must be authorized by law.[18]

According to the General Law on Education[19] (See Appendix A), which was passed in 1964, all persons who have completed second level studies at faculties, advanced schools, and art academies, and who meet other conditions for enrollment prescribed by the statute of the individual institutions of higher education, may enroll in third level studies. The conditions for enrollment vary considerably: some institutions require only a graduate's diploma while others require experience, supplementary or entrance examinations, a specific level of achievement in previous study, knowledge of foreign languages, or a combination of these.[20] The general consensus is that enrollment in third level studies should not be automatic but should be more strict and dependent on certain specific conditions.[21]

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[18] Filipovic, Studies, op. cit., p. 17.

[19] The 1960 General Law on Faculties and Universities was repealed in the process of adjusting legislation to the new Constitution. The amended General Law on Education, enacted in 1964, contains only general provisions on post-graduate studies.

[20] Yugoslav Survey, no. 25, op. cit., p. 3645.

[21] Ibid.

Types of Post-Graduate Study Excluding the Doctorate

Post-graduate studies are of two types: scientific research leading toward the Master's Degree, and advanced professional training or specialization. These two courses of study rank equally and grant those completing them the academic title of "master" and "specialist", respectively.[22] In practice, however, there is a tendency among university faculties to give greater significance to the Master's Degree and more candidates enroll in this course. According to the General Law on Education, it is the Master's Degree, not the specialization course, that is required as a condition for further study for a Doctor of Science Degree. In addition, certain positions at institutions of higher education (for example, that of a docent) require a Master's Degree.[23]

The purpose of the Master's Degree is to introduce students to the problems and methods of research in a specific field of science and learning, to provide them with the opportunity to engage in extensive study, and to enable them to acquaint themselves with the latest achievements in their field of science. Specialization, on the other hand, is an advanced course which provides both theoretical and practical training in a specific branch or field of science and is designed to acquaint the student with modern technology and to enable him to deal with problems which may arise in practice.

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[22] _Ibid._, p. 3644.

[23] _Ibid._, pp. 3647-3648.

Thus, while the Master's Degree is designed to give a candidate deeper theoretical knowledge and to familiarize him with methods of scientific work, the purpose of specialization is to intorduce students to those areas which will enhance their efficiency in the performance of their occupations.[24]

Development of Third Level Studies

Since the introduction of third-level studies in 1960, the number of schools providing post-graduate instruction has grown steadily. In the 1962/63 school year, this instruction was organized in 39 out of 123 schools of higher learning. By 1964/65, the number had grown to 53 out of 125 institutions. (See Table 25).

Out of the 45 university faculties which in 1964/65 provided post-graduate instruction, 16 were in Belgrade and 14 in Zagreb. At other universities, only a small number of faculties offered post-graduate studies (seven at Ljubljana University, five in Sarajevo, one in Skoplje, and two in Novi Sad).

In addition to university faculties, post-graduate instruction was provided at three advanced schools (Advanced School of Physical Education in Belgrade, Advanced School of Political Science in Belgrade and Ljubljana), four art academies (the Academy of Graphic Arts in Belgrade and Zagreb, the Academy of Music in Belgrade, and the Academy of Applied Arts in Belgrade), and the Yugoslav Institute for Economic Research in Belgrade.[25]

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[24] Ibid., p. 3644. Also, Filipovic, Studies, op. cit., p. 16.

[25] Yugoslav Survey, No. 25, op. cit., pp. 3645-3646.

Table 25--Number of Institutions of Higher Education Which Provided Post-Graduate Study in the School Years 1962/63 and 1964/65

Institution	1962/63		1964/65	
	Total number of institutions	Providing post-graduate instruction	Total number of institutions	Providing post-graduate instruction
Total	123	39	125	53
University faculties	93	32	93	45
Advanced Schools	16	1	16	3
Art Academies	14	6	14	4
Research Institutes	-	-	2*	1**

*Institutions authorized to introduce post-graduate instruction.

**Yugoslav Institute for Economic Research

SOURCE: "Post-Graduate Study," Yugoslav Survey, Vol VII, no. 25, (Belgrade: Federal Secretariat of Information, April-June 1966), p. 3646.

Out of the 53 institutions which provided post-graduate studies in 1964/65, courses leading toward the Master's Degree were offered in 49 schools (45 faculties, 3 advanced schools and one research institute), and instruction for specialization at 12 institutions (8 faculties and 4 art academies). Four institutions (art academies) provided instruction exclusively for specialization, and eight schools provided for both the Master's Degree and specialization.[26]

With regard to fields of study, post-graduate work is most developed in the areas of the natural and social sciences. Following next in order are the agricultural-forestry-veterinary sciences, technical science, medical science and art.[27] As to the offering of various areas of study, the Master's Degree program has the greatest number (246 out of 279); while 33 different subject fields of study are offered in the specialization course.[28]

Duration of Third Level Studies

According to the General Law on Education, third level studies must last at least one year. In practice, however, instruction for the Master's Degree usually lasts 4 semesters and for specialization, from 2 to 3 semesters and in exceptional cases to as many as 8 semesters.[29] The prevailing view is that the Master's Degree course should last at least 4 semesters, and specialization for at least 2 to 3 semesters.

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[26] *Ibid.*, p. 3646.

[27] *Ibid.*

[28] *Ibid.*, p. 3647.

[29] *Ibid.*, p. 3644.

The form of post-graduate sutdies varies in different schools. In some cases, the third level is simply the extension of the second level in which studies last 5 to 6 years. In this way, second level studies are being lengthened instead of shortened.

Because of the great variation in the length and type of courses in post-graduate study in different schools, the question has been raised whether each faculty should actually determine its own program or whether it should be the same at all faculties of the same university.[30]

Students in Third Level Studies

In the 1964/65 school year, there were 3,546 students (26% of which were women) enrolled in post-graduate studies, an increase of 24.3% over the 1962/63 school year. By far the largest number (93.7%) were studying for the Master's Degree and most of these were enrolled in university faculties. At the advanced schools there were only 99 students--all on the Master's Degree program, and at the art academies only 76 students, all taking the specialization course.[31] (See Table 26).

Of the total number of students enrolled in the Master's program (3,326), 1,431, or 45%, were from the field of social science. Of those enrolled in the specialization courses (220), 101, or 46%, were from the field of medicine and pharmacology.[32]

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[30] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., pp. 67.

[31] Yugoslav Survey, No. 25, op. cit., p. 3648.

[32] Ibid.

Table 26--Number of Students Enrolled in Post-Graduate Study, by Type of Instruction, in the School Years 1962/63 and 1964/65

	1962/63			1964/65		
	Total	Master's degree	Speciali-zation	Total	Master's degree	Speciali-zation
Total	2,854	2,699	155	3,546	3,326	220
University	2,724	2,642	82	3,371	3,227	144
Belgrade	1,725	1,656	69	1,814	1,743	71
Zagreb	666	666	-	1,018	945	73
Ljubljana	215	202	13	291	291	-
Sarajevo	-	-	-	145	145	-
Skoplje	29	29	-	47	47	-
Novi Sad	89	89	-	56	56	-
Advanced Schools	57	57	-	99	99	-
Art Academies	73	-	73	76	-	76

SOURCE: "Post-Graduate Study," Yugoslav Survey, Vol. VII, no. 25, (Belgrade: Federal Secretariat of Information, April-June 1966), p. 3648.

In the social sciences, the largest number of post-graduate students were enrolled in the field of law. With regard to the technical sciences, the largest number of post-graduate students were enrolled in the electrical engineering and technological faculties and the smallest number were enrolled in the faculties of architecture.[33]

Of the 2,854 students enrolled in third level studies in 1962/63, 2,384 were employed. Of these 996 were assistant professors or associates in faculties, and 1,391 were from industry and other organizations. One-sixth, or 467 of those enrolled in third level studies were full-time students.[34]

Completion of Post-Graduate Studies

From 1960 when third-level studies were first introduced, until the end of 1964, a total of 557 persons completed post-graduate studies. Of these, 451 obtained a Master's Degree and 106 the rank of Specialist. (See Table 27). In 1964, Master's and Specialist Degrees were conferred upon 294 candidates while in 1962 only 98 graduates obtained the degrees.[35]

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[33] Yugoslav Survey, No. 25. op. cit., p. 3649.

[34] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., p. 70.

[35] Yugoslav Survey, No. 25, op. cit., p. 3650.

Table 27--Number of Students Completing Post-Graduate Study by Type of Instruction, 1961-1964

	Master's Degree		Specialization	
	Number	%	Number	%
Total	451	100.0	106	100.0
Social sciences	162	35.9	4	4.0
Natural sciences	135	30.0	9	7.1
Agriculture, forestry, and veterinary science	69	15.3	20	20.0
Medicine and pharmacology	17	3.8	26	24.6
Technical sciences	59	13.0	-	-
Music	9	2.0	16	15.0
Graphic arts	-	-	31	29.3

SOURCE: "Post-Graduate Study," Yugoslav Survey, Vol. VII, no. 25, (Belgrade: Federal Secretariat of Information, (April-June 1966), p. 3651.

In the period from 1961 to 1964, the largest number of Master's Degrees were awarded to graduates of the natural science-math faculties and faculties of economics. In relation to the number of students enrolled, the lowest number of Master's Degrees (3) were awarded by the Law Faculty in Belgrade. The largest number of Specialist Degrees were awarded by the medical and veterinary faculties. These were followed by the art academies, particularly academies of graphic arts, where specialization is the only type of post-graduate study.[36]

Financial Aid for Students

Almost half (47.3 per cent) of the students in post-graduate study in 1964/65 received scholarships or a salary in the form of a scholarship. The post-graduate study scholarships are granted mainly by the institutions or organizations from which a student comes or in which he will later work following the completion of studies. Some university faculties have introduced special scholarships for talented students. At most of the faculties, post-graduate students can also avail themselves of credits (types of loans) granted by these institutions.[37]

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[36] __Ibid__., pp. 3650-3651.

[37] __Ibid__., p. 3649.

Teachers of Third Level Studies

In the 1964/65 school year, a total of 1,175 teachers provided post-graduate instruction. Of these, 775 were university professors, 344 docents, 56 senior lecturers, 285 associates and 394 other scholars (of whom 170 were from research institutes). In general, there is a lack of teachers in third level studies, since most are preoccupied with undergraduate instruction. As a result it has become necessary to call in outside professors or eminent experts to supplement the teaching staff.[38]

Out of the total number of teachers charged with post-graduate instruction, 1,125 or 77 per cent were on the staff of the higher educational institution offering third level studies. While at some faculties the entire teaching staff in charge of post-graduate instruction was from the same faculty, there were a number of schools in which teachers from other institutions of higher education predominated. For example, at the Faculty of Mining-Engineering in Tuzla, only six professors and one docent were from its own staff, while 26 professors, 4 docents and 1 associate were from other institutions.[39]

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[38] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., pp. 73-74.

[39] Yugoslav Survey, No. 25, op. cit., p. 3651-3652.

Coordination of Post Graduate Studies

The best results in the organization of post-graduate studies were achieved when instruction was carried out on the basis of broad cooperation between the universities and other institutions. This cooperation included the exchange of professors, mutual utilization of equipment and other facilities, the pooling of financial funds and the recruiting of eminent experts from industry and other fields.

Institutions of higher education have recently emphasized the need for closer cooperation among allied faculties, both in organizing and carrying out post-graduate instruction. Thus far, most faculties have not as yet established such cooperation the lack of which has led to much unnecessary duplication of instruction. It is expected however, that associations of related faculties, both between and within republics, would contribute to the expansion of this cooperation.[40]

Third-Level Examinations and Requirements

During the post-graduate course of study, the candidate is expected to complete the research program assigned to him, to pass an oral examination, and to defend his Master's thesis or specialization paper. At the oral examination, the candidate must give evidence of his knowledge of the subjects included in his program of studies and of the problems and research methods in the selected branch or discipline.

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[40] *Ibid.*, p. 3652.

Candidates are examined by a commission composed of at least three senior staff members. After passing the oral examination, the candidate submits his thesis or specialization paper which is examined and appraised by a commission of at least two professors appointed by the Faculty Board concerned. If the thesis is approved, the candidate must defend it before a commission composed of at least three professors.[41]

Examinations during the course of third level studies differ widely among the various faculties. In some cases, examinations consist of all subjects a candidate has taken, while others cover only selected subjects. Some schools give examinations immediately following the completion of each subject, others give examinations at the end of the first year, and some schools give examinations at the end of the second year. At some faculties there are no examinations during the course of study, but only the final examination for the Master's Degree.[42]

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[41] Filipovic, , Studies, op. cit., p. 18. Also Filipovic, Higher Education in Yugoslavia, op. cit., p. 25.

[42] U.S. Joint Publications Research Service. "Third Level of Instruction in Yugoslav Universities." Sociological Translations on Eastern Europe, No. 178. JPRS Report No. 20,907, p. 22. (Translated from Gledista (Points of View): No. 3, 1963, pp. 54-68.)

Advanced Professional Training

In addition to the regular program of third-level studies leading to an advanced degree, a number of faculties have organized short and long courses (usually from several weeks to several months in duration) for the advanced professional training of first and second level graduates. The aim of these courses is to acquaint the student with the latest achievements and methods in his particular field, to train him to apply new techniques, and to raise his overall efficiency.

Under the supervision of the faculty concerned, advanced professional training is offered in factory departments (for engineers), at medical centers which provide good facilities and equipment (for physicians, dentists and pharmacists), at large agricultural farms (for agriculturalists and veterinarians), at faculties themselves, or in their affiliated institutions.[43]

Problems of Third Level Study

Although post-graduate study, in theory, should be seminar-like, with students being referred to specialized reference literature, in practice it has been frequently reduced to the continuation of regular university studies. This has been due to lack of appropriate conditions for post-graduate study at individual faculties: Lack of personal contacts between candidates and teachers; lack of texts; inadequate research facilities; insufficient finances for engaging experts from other institutions; and in some cases because students are not fully qualified for such studies.

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[43] Filipovic, *Studies*, *op. cit.*, p. 18.

Because third-level studies have not been fully developed, post-graduate work has often been reduced to mass schooling with large numbers of students enrolling and very few completing their studies. One-third of the students drop out between the first and second year.[44] These studies, therefore, seem to furnish supplementary training, but do not produce research workers.

The rules governing third-level studies are not uniform and sometimes differ even at faculties belonging to the same university.[45] In addition, there is a lack of financial support for post-graduate studies. It has been suggested that all interested parties participate in the financing of these studies--the federation, the republics, the founders of schools and interested economic organizations.[46]

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[44] Yugoslav Survey, No. 25, op. cit., pp. 3643 and 3649.

[45] Filipovic, Higher Education in Yugoslavia, op. cit., p. 25.

[46] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., p. 75.

Although third level studies have been developing rapidly, the following problems need careful study: Broader cooperation among related faculties; more precise regulation of individual types of study; adoption of uniform criteria for admission of candidates and for appointing teaching staff; the introduction of part-time studies; securing adequate financial assistance; and providing sufficient clarity to distinguish instruction which is disigned for advanced professional training from that which is designed for acquiring an academic degree.[47]

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[47] Filipovic, *Studies*, *op. cit.*, p. 45. Also: U.S. Joint Publications Research Service. "Vocational Education and the Implementation of the New Conceptions about Advanced Schools." *Sociological Translations on Eastern Europe*, No. 97. JPRS Report No. 13,648, p. 35. (Translated from *Produktivnost* (Productivity): No. 12, 1961, p. 809-824.)

COTTON CONTENT

Professional Titles and Academic Degrees

The Law on Professional Titles and Academic Degrees, passed on April 11, 1963, regulates titles and degrees of persons who have completed the first, second, and third levels of instruction. The Law does not include the Doctorate of Science, which is considered a scientific and not an academic degree. Also excluded from the new Law are the military schools and art academies. The latter neither confer professional titles nor academic degrees.[48]

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[48] U.S. Joint Publications Research Service. "Professional Titles and Academic Degrees." Sociological Translations on Eastern Europe, No. 189. JPRS Report No. 21,881, p. 10. (Translated from Jugoslovenski Pregled (Yugoslav Review): No. 7-8, 1963, p. 317-318.)

Prior to the new Law, graduates from various faculties in Yugoslavia automatically received academic degrees. These were not governed by any regulations, and in conferring them, faculties were guided by tradition. No academic degrees were awarded by the faculties of philosophy, natural sciences, law,[49] economics or the art academies. Other faculties awarded the following degrees: Technical faculties--"engineer" with the addition of the special branch (architectural, geodedic, civil, machine engineer, etc.); agricultural faculty--"agricultural engineer"; forestry faculty--"forestry engineer"; veterinary faculty--"veterinary surgeon"; medical faculty--"doctor of medicine"; faculty of dentistry--"doctor of dentistry"; pharmaceutical faculty--"graduate pharmacist" (Belgrade) and "master of pharmacy" (Zagreb). These academic degrees were relatively the same in similar faculties throughout the country.[50]

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[49] Prior to the Second World War, graduates from law faculties in Zagreb and Ljubljana could attain the Doctor of Law Degree after passing a rigorous examination.

[50] "Professional Qualifications and Academic Degrees," Yugoslav Survey, Vol. V, no. 16, Belgrade: Federal Secretariat for Information, January-March 1964, p. 2317.

In recent years various advanced technical schools began to confer academic degrees. In addition, individual faculties and even some two-year colleges began to confer academic degrees on students who had completed the first level of studies (plant engineer, plant technician, etc.). Academic degrees were written in an obvious position before the name in short form ("eng.", "dr.").

With the reform of higher education in 1960, the need was felt to systematize the names of degrees conferred by various faculties and colleges throughout the country and to make it possible to immediately distinguish those persons with lower qualifications from those with higher qualifications. Upon this basis the law of April 11, 1963 was adopted.[51]

The Law provides that every person who has earned a diploma upon successful completion of first or second level studies is entitled to a professional title. Every person who has received a diploma upon completion of third level studies in institutions authorized to conduct such studies is entitled to an academic degree. These rights apply only to those who have completed their studies while in residence at their school, and does not apply to persons who have obtained qualifications through special courses and examinations. The title or degree attained is shown on the diploma.[52]

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[51] Ibid., p.2317 and 2318.

[52] U.S. Joint Publications Research Service. "Law on Professional Titles and Academic Degrees." Sociological Translations on Eastern Europe, No. 172. JPRS Report No. 20,366, p. 22-23. (Translated from Nova Administracija (New Administration): No. 3-4, 1963, p. 266-274.

The Law on Professional Titles and Academic Degrees prescribes only the titles for the basic divisions or group of studies at university faculties and other higher schools. All other titles are regulated by the people's republics and must be within the framework of the said basic categories of professional titles.[53]

The new law abolishes all previous academic degrees and titles, as titles (with the exception of the Doctorate of Science), and introduces professional titles which must be written after the last name.[54] The titles must never precede the name as a social title and there are no recognized short forms (for example "eng.").[55] The Doctorate of Science is an exception and may precede the holder's name either written out in full or abbreviated.[56]

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[53] Ibid., pp. 21-22.

[54] U.S. Joint Publications Research Service. "Professional Titles and Academic Degrees," loc. cit.

[55] Yugoslav Survey, No. 16, op. cit., p. 2318.

[56] U.S. Joint Publications Research Service. "Law on Professional Titles and Academic Degrees," op. cit., p. 24.

Professional titles are now uniform and identical for all faculties, advanced schools and colleges throughout the country and denote the degree of training attained for a particular occupation or profession. Titles vary only in the defining of the specialty, department or branch of training. Thus, those who graduate from a teaching faculty acquire the professional title of "teacher" (or professor). To this, the major may be added (teacher of mathematics, teacher of geography, etc.). Those who graduate from the faculty of mechanical engineering acquire the title of "graduate mechanical engineer." To this may be added the specialty--"graduate mechanical engineer for thermotechnology".[57] For those who complete post-graduate studies, the professional title is "graduate civil engineer, specialist in ....", etc.[58]

The Law provides for 11 categories of professional titles: Three of these include schools of social sciences (education, law, economics); three more categories include the school of medical sciences (medicine, dentistry, pharmacy); another three include the schools of forestry, agriculture and veterinary medicine; and the remaining two categories include schools of the engineering sciences.[59]

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[57] U.S. Joint Publications Research Service. "Professional Titles and Academic Degrees," loc. cit.

[58] Yugoslav Survey, No. 16, loc. cit.

[59] U.S. Joint Publications Research Service. "Law on Professional Titles and Academic Degrees," loc. cit.

These categories and their titles are as follows:

(1) Education. In the departments of certain teaching faculties (philology, philosophy-history, philosophy, natural science-math, or engineering), in biotechnical faculties, or at corresponding advanced schools and colleges which train teachers, those who complete the first level of studies acquire the professional title of "teacher". Completion of second level studies gives the right to the title of "professor". Following each title the field of specialization is added (i.e. "teacher of physics" or professor of history"). In addition to the graduates of schools of education, all other persons who are employed as teachers in schools (economists, lawyers, engineers), regardless of their academic preparation, may have these titles as designations of their occupation.

(2) Law. At faculties of law, or in the law division of law-economics faculties, or at corresponding advanced schools and colleges, the first level of studies gives the right to the qualification of "lawyer". Completion of second level confers the title of "graduate lawyer".

(3) Economics. At faculties of economics, or economic divisions of law-economic faculties, and at corresponding advanced schools and colleges, the first level title is "economist", and the second level title is "graduate economist".

(4) Medicine. At medical faculties or medical training colleges, the first level qualification is "senior medical technician" or "senior medical nurse". The second level qualification is "physician". The earlier title of "Doctor of Medicine"has been discontinued. Since curricula in medical faculties are not divided into level studies, titles for the first level are reserved exclusively for graduates of the colleges. Because the new Law does not cancel or revoke earlier academic degrees, graduates who have held the title of "Doctor of Medicine" may still retain it, but it must be written following the holder's name as a professional title only, and not before the name as a social title.

(5) Dentistry. At faculties of dentistry, dental departments of medical faculties, or medical training colleges, the two qualifications are "senior dental technician" and "dental physician". The latter title replaces the earlier "Doctor of Dentistry".

(6) Pharmacy. Upon completion of first-level studies in pharmaceutical faculties, the title of "senior pharmaceutical technician" is given. The title following second-level studies is "graduate pharmacist". At present, there are no colleges of pharmacy.

(7) Agriculture. Agricultural faculties, agricultural departments of biotechnical faculties or agricultural forestry faculties, and corresponding advanced schools and colleges confer the qualification of "agricultural engineer", and "graduate agricultural engineer". In both cases, the branch qualification may be added.

(8) Forestry. At faculties of forestry, and in the forestry departments of the biotechnical and agricultural-forestry faculties, the first-level qualification is "forestry engineer"; the second level title is "graduate forestry engineer". The branch of specialization may be added where necessary.

(9) Veterinary. Upon completion of first-level studies in veterinary faculties, the title of "veterinary surgeon" is given; the second-level title is "graduate veterinary surgeon".

(10) Engineering. In the civil engineering, architectural, machine and other branches of the faculties of engineering and in corresponding advanced schools and colleges, the lower level qualification is "engineer" (machine engineer, architectural engineer, etc.), while the upper level qualification is "graduate engineer" (graduate machine engineer). At both levels, the special branch may be added (graduate machine engineer for hydraulic engineering).

(11) Transport. At the faculties of traffic and transport engineering, and at corresponding colleges, the two qualifications are "transport engineer" and "graduate transport engineer". The branch qualification may be added.[60]

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[60] U.S. Joint Publications Research Service. "Law on Professional Titles and Academic Degrees," op. cit., pp. 25 and 26. Also: Yugoslav Survey, No. 16, op. cit., pp. 2319-2320.

Academic Degrees

There are only two academic degrees other than the Doctorate: "Master" and "Specialist". The degree is written following a holder's name; the branch in which it was attained is also shown. Various post-graduate courses providing instruction for professional improvement do not entitle those attending to any academic degree.

The Law on Professional Titles and Academic Degrees is not retroactive unless it is to the interest of the individual concerned. All persons who graduated previously are entitled to professional qualifications or academic degrees even though such qualifications or degrees were not entered upon their diplomas as all now must be.

Former titles or academic degrees must now be written following the holder's name. Individuals who formerly attained the right to the qualification of Doctor of Medicine, Doctor of Dentistry, Engineer of Economy, or Master of Pharmacy may continue to hold these titles but they must be written after the persons name.

Professional qualification or academic degrees attained abroad must be accredited according to procedures established in regulations of the Federal Executive Council.[61]

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[61] Yugoslav Survey, No. 16, op. cit., p. 2320.

The Doctor's Degree

With the introduction of third-level studies, the Doctor's Degree and conditions for obtaining it have changed. Originally, the doctorate could be obtained by any person possessing a university degree who passed the oral examination and successfully defended his thesis. The aim of the doctorate had been primarily to introduce students to scientific or scholarly research. This task, under the new system, has been taken over by third-level studies leading toward the master's degree. New conditions have been established for acquiring the doctorate.

The Doctorate of Sciences may be earned by citizens who have completed instruction at the second-level and have published appropriate scientific or scholarly works or have gained distinction in their professional work. The Doctorate also may be earned by citizens who have earned the Master's Degree and have proved by their work to be capable of independent scientific research. In addition, all candidates for the doctorate must submit and successfully defend a thesis. An oral examination is no longer required.[62]

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[62] "Reform of Higher Education," Information Service Yugoslavia, (BELGRADE: 1960) p. 6. See Also: "Reform of Higher Education," Yugoslav Survey (Belgrade: Jugoslavija, July-September 1960), vol. I, no. 2, p. 254.

A candidate for a doctor's degree must submit his application to the faculty concerned and certify that he has completed second level studies. The application should contain a statement of the subject of the proposed thesis and the problems with which it will be concerned. The Faculty Board, upon recommendation of a special committee selected for that purpose, decides whether or not to approve the proposed thesis subject. If the subject is approved, the candidate is assigned to a chairman appointed by the Faculty Board. The chairman will direct and assist the candidate with his research.[63]

The thesis is defended in public. The examiners test whether the candidate has done his work independently and whether his conclusions are correct and valid. Most faculties allow unsuccessful candidates to register a thesis dealing with another aspect of the same or some related subject. If the candidate fails on the second attempt, he is no longer eligible to submit a thesis in that field of learning.

The doctor's degree is conferred by the rector of the university, in the presence of the dean of the faculty and members of the commission before whom the thesis was defended.

From 1945 to 1963, doctor's degrees were awarded to 2334 persons, or an average of 123 yearly. In recent years, the yearly average has increased (264 in 1962, 269 in 1963, and 513 in 1964).[64]

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[63] Filipovic, Higher Education in Yugoslavia, op. cit., p. 31.

[64] Filipovic, Studies, op. cit., pp. 21-22.

Doctor's degrees may be awarded by schools offering third level studies. These include faculties and advanced schools. Such powers have not as yet been granted to independent research institutions. At faculties of theology (Orthodox in Belgrade, Catholic in Zagreb and Ljubljana) doctor's degrees are granted by special regulations which are prescribed by the religious bodies concerned.[65]

Doctor's degrees obtained at foreign universities are subject to verification in Yugoslavia according to regulations prescribed by the Federal Executive Council.[66]

Honorary Doctor's Degrees

The universities in Yugoslavia also grant honorary doctor's degrees. These are conferred upon persons who have made substantial contributions to learning, advanced scientific thought by their work, and who have contributed to the progress of science or social progress in general. Honorary doctor's degrees are granted in all areas in which the doctor's degree is acquired by the thesis. Honorary degrees may also be awarded without specification of subject. Doctor's Degrees "Honous Causae" may be awarded by Yugoslav universities to foreign citizens.[67]

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[65] *Ibid.*, p. 21.

[66] *Ibid.*, p. 22.

[67] *Ibid.*

Research

Over the past twenty years, a wide network of research institutions has been developed in Yugoslavia which employs more than 8,000 scientists and researchers. In 1963, there were 277 research institutes, 109 of which were engaged in mathematical and technological research, 95 in biological research and 73 in research in the social sciences. The major scientific branches of study include nuclear energy, electronics, automation, modern biology, utilization of water resources and construction engineering.[68]

An international laboratory for research into neurophysiology, the first of its kind in the Mediterranean area, was established in 1966 in Kotor, a Yugoslav port on the southern coast of the Adriatic Sea. Scientists from the United States, the Soviet Union and other European and Middle Eastern countries will work in the new laboratory which will study the nervous system, molecular biology, and cell functions. The new laboratory is attached to the Kotor Institute for Marine Biology. Scientific institutions in the United States, whose staff are interested in the work of the laboratory, will aid in purchasing necessary equipment and instruments.[69]

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[68] "Research Institutes and Their Achievement," Articles and Extracts from Review (Yugoslav Monthly Magazine), (Beograd: October 1964), pp. 1-2.

[69] "An International Laboratory for Research into Neurophysiology Has Been Established at Kotor," Yugoslav News Bulletin, IV (February 1966), p. 6.

There are three types of university and faculty research institutions: Independent institutes of the universities; independent institutes of the faculties; and internal institutes of the faculties. The faculty institutes, both independent and internal, are primarily limited to the narrower fields of science covered by the school program. The university research institutes are wider in scope and cover the program of several faculties.

Approximately half of the university and faculty research institutes are founded in conjunction with extra-mural bodies (socio-political communities, economic organizations and social services). In 1963, there were 31 independent university research institutions (15 jointly founded) and 102 independent faculty research institutions (of which 53 were co-founded).[70]

The Department of Math and Physics at the Natural Science-Math Faculty in Belgrade has an impressive scientific program with a strong emphasis on research. Many of its staff have studies abroad and close cooperation has been maintained with foreign universities. Textbooks from the Michigan Institute of Technology have been translated and used in the school as well as texts from universities in the Soviet Union, England, France and Germany.

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[70] Filipovich, Studies, op. cit., p. 20.

The Natural Science-Math Faculty in Belgrade has also developed an extensive program for improving the quality of physics teaching in the secondary schools. Seminars are given for secondary teachers by the Math-Physics Society (a voluntary group). Occasionally university lecturers go to the secondary schools. Opportunity is also provided for secondary school students to attend certain lectures at the university.

A few years ago the Institute of Physics was established in which physics professors from various faculties participate.

CHAPTER V

PROGRAM OF STUDIES AND CURRICULA

Formerly, curricula in schools of higher education were of a general nature and of the same type at all similar faculties; each department of a faculty prepared a uniform type of graduate. Following the 1960 Reform, new branches of study were opened and many new specializations were added. In Serbia alone, there are some 370 different specializations, 176 of which are on the college level and 194 on the university level. Because of these narrow fields of study, some specialties have only a few students which makes the instruction per student expensive.[1]

Differences in Specialization

Prior to 1958, at the Machinery Faculty in Belgrade 94 per cent of the studies were common to all students. In 1965, this percentage had dropped to 48 per cent.[2] Before the Reform, Ljubljana University offered 50 different fields of study. Following the reform, there were 62 fields offered on the first level alone, and 84 on the second level.

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[1] Rodoljub Jemuovic, Obrazovanje i Reforma (Education and Reform), (Beograd: Sedma Sila, 1966), pp. 89-90.

[2] Univerzitet Danas (University Today), Zajednica Jugoslavenskih Univerziteta (Association of Yugoslav Universities), VI, 1. (1965), p. 26.

In the same period the number of fields of study at Skoplje University increased from 25 to 65 and the number of subjects in the curriculum from 581 to 1162.[3] At Belgrade University, those faculties which maintain the undivided program of studies have approximately 20 to 30 subjects in the curriculum, or at the most 40. At faculties which have adopted level studies there are many more: At the agricultural faculty, 150; at the technical faculty, 120; at the machinery faculty, 96; at the building faculty, 80. These extra subjects necessitate greater numbers in staff, materials, texts, etc.[4]

The Technical Faculty in Belgrade offers 10 fields of study on the first level and 9 on the second level. At the Technical Faculty in Zagreb, there are two major departments (chemistry-technology and biology), each with three branches and with many elective subjects. At the remaining technical faculties, specializations are even narrower.

At the Veterinary Faculty in Belgrade there are three branches of study, each one having a different length of study: Veterinary medicine is 5 years; preventive veterinary medicine, 4½ years; and hygiene and technology of living, 4 years. At the University of Zagreb and Sarajevo, there are no departments or branches; studies in the former last 5 years and in the latter 4 years. In the veterinary department of the Biotechnical Faculty in Ljubljana there are 3 divisions, each of which lasts 4 years.[5]

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[3] *Univerzitet Danas* (University Today), Zajednica Jugoslavenskih Univerziteta (Association of Yugoslav Universities), IV, 5-6, (1963), p. 177.

[4] *Univerzitet Danas*, VI, 1, *op. cit.*, p. 28.

[5] *Ibid.*, p. 29.

Need for Minimum Standards

Specialization has expanded to such an extent that there is now a great need to coordinate programs, consolidate parallel types of schools and establish minimum standards so that training for a particular vocation will be typically the same in all schools of a similar type. It is felt that this coordination can best be achieved through inter-faculty conferences and associations. A question still to be resolved, however, is whether first-level studies should train a narrowly specialized expert or a general one.[6]

Differences in Curricula

Following the disastrous Skoplje earthquake of 1963 in the Republic of Macedonia, and the transfer of university students to other faculties throughout the country, it became evident that not only were there great differences in curricula from one school to another, but that there was a great difference in standards, since the Skoplje medical students were not able to enroll in any other medical school in the country. In other faculties, students found it difficult to transfer credits.[7]

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[6] *Ibid.*, p. 35-43.

[7] *Ibid.*, pp. 26 and 35.

Medical Faculties

The training of doctors in Yugoslavia varies considerably. At the Medical Faculty in Zagreb the total number of hours for the entire course of study is 3,060, while the Medical Faculty in Novi Sad requires 4,880 hours. There are also variations per year of study. First-year study in Zagreb includes 565 hours; in Skoplje, 1,035. In the second year, 540 hours are required in Skoplje and 866 hours in Sarajevo. Third-year studies in Zagreb require 750 hours; in Sarajevo, 910. The greatest discrepancy occurs during the fourth and fifth year: Fourth year studies in Zagreb include 525 hours while in Novi Sad it is 1,170 hours; in the fifth year Zagreb requires 675 hours and Sarajevo 1,195 hours. With regard to a single subject of study, Ljubljana University requires 75 hours of chemistry, while in Belgrade and Novi Sad and other faculties which have adopted the concept of Belgrade University, 240 hours are required.[8]

Studies at the medical faculties last 5 years. The prevailing view is that this is too short and should be extended to at least 6 years. There is also a need to improve the one year of internship with more practical training, thereby raising studies to 7 years. Part-time studies in this field have not proven satisfactory as most of these students are those who have failed entrance examinations and later hope to transfer to regular status.[9]

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[8] Jugoslovenski Standardi U Univerzitetskoj Nastavi (Yugoslav Standards in University Education), Zajednica Jugoslovenskih Univerziteta (Association of Yugoslav Universities), (Beograd: 1964), pp. 61-62.

[9] *Ibid.*, p. 68

The Medical Faculty in Rijeka has been in existence approximately ten years and has grown from 6 to 700 students (one-fourth of which are women). Its doctors both practice medicine and teach at the faculty. Studies are five years in duration, with one year of internship. (See Table 28 for curriculum).

In discussions with school administrators in Yugoslavia, it was pointed out that while the Medical Faculty in Belgrade tended to orient itself to France, and the Medical Faculty in Zagreb to Austria, the Rijeka Medical Faculty has developed Anglo-Saxon relationships in the belief that the other schools were too classically oriented. School officials indicated that the supply of doctors is fairly good and that facilities were adequate to attract doctors to come back to Yugoslavia, whereas formerly they would remain in foreign countries following their study abroad.

Table 28 --Curriculum of the Medical Faculty in Rijeka (Republic of Croatia)

Subjects	Semester I		Semester II		Total Hours
	Lec.	Lab.	Lec.	Lab	
FIRST YEAR					
Physics	2	2	2	2	120
Chemistry	3	4	3	4	210
General Biology	3	2	3	2	150
Anatomy	3	2	3	-	118
Physiology	-	-	2	-	32
Introduction To and History of Medicine	2	-	-	-	28
Foundations of Social Science	2	-	2	-	60
Biostatistics	1	1	-	-	28
Military Training	2	-	2	-	60
Total Hours Per Week	18	11	17	8	806
Lecture and Lab.	29		25		
SECOND YEAR					
Anatomy	3	8	-	-	154
Histology and Embryology	2	2	3	3	152
Physiology	3	3	4	6	244
Biochemistry	2	2	2	2	120
Medical Psychology	-	-	1	1	32
Military Training	2	-	2	-	60
Total Hours Per Week	12	15	12	12	762
Lecture and Lab.	27		24		

Table 28 (cont.)

Subjects	Semester I Lec.	Semester I Lab.	Semester II Lec.	Semester II Lab.	Total Hours
THIRD YEAR					
General Pathology and Pathological Anatomy	4	4	5	4	256
General Pathological Physiology	2	2	2	2	120
Microbiology and Parasitology	3	2	2	3	150
Propaedeutics (Clinical Medicine)	3	4	3	4	210
Foreign Language	2	2	2	2	120
Total Hours Per Week Lecture and Lab.	14	14	14	15	856
	28		29		

Table 28 (cont.)

FOURTH YEAR

Subjects	Semester I Lec.	Semester I Lab.	Semester II Lec.	Semester II Lab.	Total Hours
Pharmacology	4	2	2	2	148
Internal Medicine	4	4	4	4	240
Infectious Diseases	1	1	1	2	76
Study of Lung Diseases	1	1	-	-	28
Roentgenology	2	2	-	-	56
Neurology and Psychiatry	2	2	2	2	120
Dermovenerology	2	2	1	2	104
Physical Medicine and Rehabilitation With Hydro-Climatic Waves	-	-	1	1	32
Surgery	-	-	2	2	64
Gynecology and Obstetrics	-	-	2	2*	64*
Hygiene and Social Medicine	1	1	-	-	28
Total Hours Per Week Lecture and Lab.	17	15	15	17	960*
	32		32		

*Note: plus one day

Table 28 (cont.)

FIFTH YEAR

Subjects	Semester I Lec.	Semester I Lab.	Semester II Lec.	Semester II Lab.	Total Hours
Surgery	2	2	3	3	152
Emergency Surgery	2	2	-	-	56
Orthopedics	1	2	-	-	42
Gynecology and Obstetrics	2	2*	2	2*	120**
Pediatrics	3	3	2	4	180
Ophthamology	1	1	1	1	60
Study of Ear, Nose and Throat	1	1	1	1	60
Oral Surgery	1	1	-	-	28
Hygiene and Social Medicine	2	3	3	4	182
Forensic Medicine	-	-	2	2	64
Total Hours Per Week Lecture and Lab.	15	17	14	17	944**
	32		31		

Note: * plus 3 days
** plus 6 days

SOURCE: Statut Medicinskog Fakulteta u Rijeci (Statute of the Medical Faculty in Rijeka), (Rijeka: 1965), pp. 6-8.

Economic Faculties

In comparing the curricula of economic faculties, great differences exist in the organisation of subjects. In some schools a certain subject may be taught on the first-level of studies, in other schools on the second-level. Even in the same faculty a subject may be offered the first year in one branch of study and the second year in another branch of study.[10] Only one subject--political economy is taught in all economic faculties during the same year (first year). In the first year sociology is taught in 5 faculties, introduction to business economics in 6 faculties, and bookkeeping in 5 faculties. In the upper grades differences are much greater.

Conditions of enrollment also vary: In the economic faculty in Subotica, graduation from a gymnasium or economic secondary school is required; in Ljubljana, completion of the gymnasium, teacher training high school, secondary economic high school, or any two-year college is required; in Sarajevo, no requirements are listed; in Belgrade, graduation from the gymnasium or corresponding secondary school is required; at the Advanced School of Economics in Zagreb, a corresponding secondary school, etc. is required.

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[10] Ibid., p. 9.

For those who have not had secondary training, an entrance examination must be taken. Again, there are variations: At the Advanced School of Economics in Zagreb, an examination is given in four subjects; at Belgrade and Ljubljana, in addition to examinations, practical experience is acquired; and in Titograd, practical experience must be in economic-commercial work. There are also differences in requirements of passing from one grade to the next, in the number of times examinations may be repeated, etc.[11]

Law Faculties

Great differences exist in curricula between faculties which provide level studies and those which do not, which in turn makes transfer from one school to another difficult. However, transfers of students is not the only problem. Much more basic is the fact that there are differences in the type of graduate produced.

The law faculties offer four different programs of study: In Ljubljana, almost all courses offered in first-level instruction are studied in depth later on in the second-level; in Belgrade, a certain group of subjects is offered on the first-level and a second group of subjects at the second level; in Zagreb, there is the undivided 4-year program; in Sarajevo, both first level studies and the four-year program are provided.[12]

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[11] Ibid., p. 12.

[12] Univerzitet Danas, VI, 1, op. cit., pp. 27-29.

All law faculties accept gymnasium graduates but vary in their acceptance of graduates from other secondary schools. Some faculties accept all other secondary school graduates, while other faculties only accept those from the gymnasium and from one other "corresponding" secondary school. In addition, some republican regulations require that all candidates, except those with A or B grades, take qualifying examinations. In general, compared to other types of faculties, the law faculties have the fewest limitations for enrollment.[13]

The Belgrade Law Faculty has a very large student body. All who wish may enroll. The new school statute, however, is expected to provide strict entrance requirements. In discussions with school officials it was pointed out that most of the students enrolled never expect to actually enter the practice of law. The curriculum for the Belgrade Law Faculty is given in Table 29.

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[13] Jugoslovenski Standardi U Univerzitetskoj Nastavi, op. cit., p. 36.

Table 29 --Curriculum of the Law Faculty in Belgrade

Subjects	Hours Per Semester Lecture	Seminar
FIRST YEAR (I and II Semesters)		
Introduction to Law	3	1
Introduction to Sociology	2	1
Ecomonic System of Yugoslavia	3	1
Constitutional Law	3	1
History of Government and Law	3	-
Military Training I	2	-
SECOND YEAR (III and IV Semesters)		
Introduction to Civil Law and Contemporary Law	3	1
Criminal Law	3	1
Administrative Law	3	1
Labor Law	2	1
Family Law (in III semester)	3	1
Basic Statistics (in IV semester)	2	1
Military Training II	2	-

(Table 29 cont.)

a. Judicial Course

THIRD YEAR (V and VI Semesters)

Subjects	Hours Per Semester Lecture	Seminar
Political Economy	3	-
Social-Political System of Yugoslavia	2	-
Mandatory Law (Obligaciono pravo)	3	1
Roman Private Law	2	-
Criminal Procedural Law	3	1
Basis of International Public Law (in V Semester)	3	1

FOURTH YEAR (VII and VIII Semesters)

Subjects	Lecture	Seminar
Economic Law	3	1
Civil Procedure	2	1
Criminology with Penology	2	1
Legal Medicine (in VII Semester)	3	1
International Private Law (in VII Semester)	3	1
Inheritance Law (in VII Semester)	2	1

(Table 29 cont.)

b. Economic-Law Course

THIRD YEAR (V and VI Semesters)

Subjects	Hours Per Semester Lecture	Seminar
Political Economy	3	-
Social-Political System of Yugoslavia	2	-
Mandatory Law (Obligaciono pravo)	3	1
Economic Politics	3	-
Communal System and Communal Politics	2	1

FOURTH YEAR (VII and VIII Semesters)

Economic Law	3	1
Civil Procedure	2	1
Finance and Financial Law	3	-
Economic Enterprises	3	-
International Economic Law (in VIII Semester)	3	1
Copyright and Industrial Ownership (in VIII Semester)	2	1
International Private Law (in VII Semester)	3	1

(Table 29 cont.)

c. Political-Administrative Course

THIRD YEAR (V and VI Semesters)		
Subjects	Hours Per Semester Lecture	Seminar
Political Economy	3	-
Social-Political System of Yugoslavia	2	-
Economic Politics	2	-
Communal System and Communal Politics	2	1
History of Political Theory (in V Semester)	2	-
History of Political and Legal Institutions of Yugoslavia (in VI Semester)	2	-
FOURTH YEAR (VII and VIII Semesters)		
Theory of Government	2	-
International Public Law	3	1
Public Law	2	1
Finance and Financial Law	3	-
Social Politics	2	-
Basis of Sociology of Work	2	-

SOURCE: Statut Pravnog Fakulteta u Beogradu (Statute of the Law Faculty in Belgrade), (Belgrade: University of Belgrade, 1961), pp. 5-7.

Need to Coordinate Curricula

As a result of the expansion of higher education, curricula were changed to meet practical needs, but these needs were not always clear nor adequately determined. There has been lack of agreement between schools of higher education and industry on the type of graduate needed, on the amount and content of curricula and on the type of training which would have the greatest effect in practice. Very little has been done by institutions of higher education in conducting follow-up studies of their graduates in order to determine their success or failure in practice, or to determine the views of industry concerning these graudates.[14]

Examples of Other School Programs

The two-year College of Administration in Ljubljana is designed to prepare qualified personnel for positions in which administrative-legal training is required, to supplement qualifications of administrative white-collar workers, and to train students for work in administrative service. This type of school has done much to help solve the problem of supplying personnel for Yugoslavia's public administrative offices --particularly the people's councils. The curriculum of the two-year College of Administration is given in Table 30.

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[14] Jemuovic, Obrazovanje i Reforma, op. cit., p. 90.

Table 30--Curriculum of the Two-Year College of Administration

FIRST YEAR

Subjects	Weekly hours per semester I	Weekly hours per semester II
Basic Theory on Government and Law	2	2
Social-Political System of Yugoslavia	2	2
Public Administration - General Section	2	2
Public Administration - Organization and Work of Government Administration	2	2
Administrative Procedure and Administrative Disputes	-	2
Political Economy	2	2
Economics of Yugoslavia	-	3
Rights of Economic Organizations	2	2
Organization of Office Work and Official Correspondence	2	2
Working Relations in Public Administration and Economy	2	2
Basic Statistics	2	-
Special Lab and Seminar	5	5
Elective Subject (Foreign Language, Stenography)	2	2
Military Training	2	2

SOURCE: Statut Visje Upravne Sole v Ljubljani (Statute of the College of Administration), (Ljubljana: 1964), pp. 6-7.

(Table 30 cont.)

SECOND YEAR

Subjects	Weekly hours per semester III	IV
Public Administration - General Section	2	-
Public Administration - Organization and Methods of Work of Local Bodies	2	1
Public Administration - Organization and Work in the Field of Social Services	-	2
Administrative Procedure and Administrative Disputes	3	2
Foundations of Inheritance and Family Law	3	-
Foundations of Contemporary and Mandatory Law	2	2
Foundations of Judicial, Extra-Judicial and Executive Procedure	-	3
Economics and Organization of Economic Organizations	3	3
Public Finance and Financial Transactions in Public Administration	2	2
Lab in the People's Language (written and oral)	2	-
Elective Subject	2	2
Special Lab and Seminar	4	4
Military Training	2	2

Required Practical Training after 3rd semester (240 hours)

SOURCE: Statut Visje Upravne Sole v Ljubljani (Statute of the College of Administration), (Ljubljana: 1964), p. 8.

The Political Science Faculty in Zagreb, which is approximately four years old, aims to fulfill needs in the economy and to develop critical thinking. The school does not train for leadership, but only for staff positions. A four-year undivided program of studies includes 23 subjects of study in the following areas: Theoretical foundations, history of political science, contemporary political systems, and the socio-political system of Yugoslavia. School officials, however, feel that the curriculum is too classical and plan to modernize it. (See Table 31 for the curriculum of the Political Science Faculty in Zagreb).

The curriculum for the department of mathematics at the Natural Science-Mathematics Faculty is given in Table 32. The students may choose one of two courses of study: Theoretical mathematics and applied mathematics. The first two years of study are the same in both programs.

Table 31 --Curriculum of the Political Science Faculty in Zagreb

Subjects	Hours Per Semester			
	1st yr.	2nd yr.	3rd yr.	4th yr.
Foundation of the Science of Politics	4	3	3	-
Philosophy with Marxism	3	3	-	-
Political Economy	3	2	-	-
Sociology	4	3	-	-
Methodology of Social Sciences	4	4	3	-
History of Civilization	3	-	-	-
Socialist Revolution of Yugoslavia	2	-	-	-
History of the Workers' Movement	-	2	-	-
Contemporary Economic Systems and International Economic Relations	-	2	-	-
International Political Relations	-	4	-	-
Socio-Political System of Yugoslavia	-	3	4	-
Foundations of Social Psychology	-	-	2	-
Foundations of Diplomacy with Modern History of International Relations	-	-	2	-
Contemporary Political Systems	-	-	4	-
History of Political Doctrins	-	-	2	-
Economic Politics of Yugoslavia	-	-	2	2
Economic and Social Geography	-	-	2	-
Foundations of International Public Law	-	-	-	3
Science of Administration	-	-	-	3
Legal System of Yugoslavia	-	-	-	3
Social Politics	-	-	-	3
Regional Development and Planning	-	-	-	3
Basic Problems of Modern Culture	-	-	-	2
Total Hrs. Per. Sem.	23	26	24	19

SOURCE: Fakultet Politickih Nauka u Zagrebu (Faculty of Political Science in Zagreb), (Zagreb: University of Zagreb, 1963), p. 21.

Table 32--Curriculum of the Natural Science-Mathematics Faculty
(Mathematics Course of Study)

(a) Theoretical Mathematics Course of Study

FIRST YEAR

Subjects	Semesters			
	Lec.	Lab.	Lec.	Lab.
Mathematical Analysis	3	2	3	2
Analytical Geometry and Linear Algebra	3	2	3	2
Descriptive Geometry	2	2	2	2
General Physics I, II	3	2	3	2
Military Training	2	-	2	-
Total Hours Per Week	13	8	13	8
	21		21	

SECOND YEAR

Subjects	Lec.	Lab.	Lec.	Lab.
Mathematical Analysis	3	2	3	2
Numerical and Statistical Methods	2	2	2	2
Projective Geometry	2	2	2	2
Theoretical Mechanics I, II	3	2	3	2
General Physics III, IV	3	2	4	2
Military Training	2	-	2	-
Total Hours Per Week	15	10	16	10
	25		26	

THIRD YEAR

Subjects	Lec.	Lab.	Lec.	Lab.
Algebra	3	2	3	2
Differential Geometry	3	2	3	2
Mathematical Analysis	3	2	3	2
Theory of Numbers	2	1	2	1
Theoretical Physics	3	2	3	2
Elective Subject in Mathematical Physics	3	2	3	2
Basis of Social Science I	2	1	2	1
Total Hours Per Week	16	10	16	10
	26		26	

Table 32 (continued)

FOURTH YEAR

Subjects	Semesters			
	Lec.	Lab.	Lec.	Lab.
Foundations of Geometry	3	2	3	2
Elective Subject in Mathematical Analysis	2	1	2	1
Seminar in Mathematics of Geometry	-	2	-	2
History of Mathematics	2	-	2	-
Basis of Social Science II	2	1	2	1
Research Paper	-		-	
Total Hours Per Week	9	6	9	6
	15		15	

(b) Applied Mathematics Course of Study (First and Second Year Same as for Theoretical Mathematics Course of Study)

THIRD YEAR

Subjects	Lec.	Lab.	Lec.	Lab.
Elective Subject in Special Mechanics I	2	1	2	1
Introduction to Atomic Mechanics	2	1	2	1
Mathematical Analysis III	3	2	3	2
Differential Geometry	3	2	3	2
Theoretical Physics I, II	4	2	4	2
Basis of Social Science I	2	1	2	1
Total Hours Per Week	16	9	16	9
	25		25	

FOURTH YEAR

Subjects	Lec.	Lab.	Lec.	Lab.
Elective Subject in Special Mechanics II	2	1	2	1
Elective Subject in Mathematical Physics	3	2	3	2
Theoretical Physics III, IV	3	2	3	2
Seminar in Applied Mathematics	-	2	-	2
Applied Mathematics of Applied Physics	2	-	2	-
Basis of Social Science II	2	1	2	1
Research Paper	-		-	
Total Hours Per Week	12	8	12	8
	20		20	

SOURCE: Statut Prirodoslovno-Matematicki Fakultet (Statute of the Natural Science-Math Faculty), (Zagreb: 1962), pp. 15-16.

The Philosophical Faculty in Ljubljana has the following departments:[15]

- Philosophy
- Sociology
- Pedagogy
- Psychology
- History
- History of Art
- Archeology
- Ethnology
- Geography
- Slavic Languages
  - Slovenian Language and Literature
  - Serbo-Croatian Language and Literature
  - Russian Language and Literature
  - Comparative Slavic Languages
- Romance Languages
  - French Language and Literature
  - Italian Language and Literature
- Germanic Languages
  - English Language and Literature
  - German Language and Literature
- Greek and Latin Languages and Literature
- Comparative Indo-European and Oriental Philology
- World Literature and Literary Theory
- Musicology

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[15] *Statut Filozofske Fakultete u Ljubljani* (Statute of the Philosophical Faculties in Ljubljana), (Ljubljana: 1964) p. 4.

CHAPTER VI

STUDENTS

Substantial changes have been made in the internal structure of the student body following the Second World War. Children of workers and peasants are studying in universities today in much greater numbers than before the War. Women have gained equal rights with men for study and are enrolled today in faculties which were not attended by them before the War--technical, veterinary, agricultural and forestry faculties.[1]

Admission Requirements

Two categories of students may enroll as undergraduates in Yugoslav schools of higher learning. The first category includes graduates of the gymnasium, the technical and vocational schools, and the practical training and apprenticeship schools provided the course of study in the latter group lasts at least three years and the pupils enrolled in them have completed the elementary eight-year school. The second category includes those persons over 18 years of age who lack formal school qualifications but who have had at least 4 years of practical experience and prove by examination, or other means that they are capable of successfully following school instruction.

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[1] Jovan Djordjevic, "Universities in Yugoslavia," Information Service Yugoslavia, (Belgrade: 1955), p. 2.

Candidates from vocational schools may enroll only at those faculties which correspond to the type of school previously attended. The university itself prescribes which faculty "corresponds" to the individual schools. Since some of the practical training and apprenticeship schools do not always offer sufficiently comprehensive and advanced courses, some faculties require that candidates from these schools pass a preliminary examination in certain subjects which are of particular importance for study at the faculty concerned. The preliminary examination often serves the purpose of "preliminary selection", since the candidate must pass this examination before he may compete for admission under the same conditions as graduates from other secondary schools.[2]

In general, candidates are selected on the basis of their previous record, and only when the number of applicants exceeds the capacity of the faculty are entrance examinations given. Students with "A" grades are exempt from entrance examinations and, in most cases, students with "B" grades.[3]

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[2] Marijan Filipovic, Higher Education in Yugoslavia, (Beograd: Jugoslavija Publishing House, 1962), pp. 34-35.

[3] Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), p. 24.

In art academies, the candidate's talent and inclination for the respective branch of art is tested; no "corresponding" school is required. In certain academies (dramatic arts and music) there is an age limit for enrollment: candidates must not be under 18 nor over 25 years of age.[4]

Entrance Examinations

Until recently, enrollment in schools of higher education was limited only by the capacity of the school concerned. The trend is now toward stricter selection of students. In 1962/63, Zagreb University adopted qualifying examinations in its technical and medical faculties for all but "A" and "B" students; in 1963/64, examinations were required of all students regardless of their past record. It was felt that enrollment was too great for the capacity of the schools concerned, that the caliber of student was poor, that the drop-out rate was high and that "A" and "B" students turned out, in many cases, to be poor college students because of the lack of uniform criteria in secondary school curriculums and grading.[5]

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[4] Ibid.

[5] Univerzitet Danas (University Today), Zajednica Jugoslavenskih Univerziteta (Association of Yugoslav Universities), IV, 3-4, (1963), p. 136.

In 1956/57, all Belgrade University faculties required entrance examinations with the exception of law and economics. In 1963/64, Belgrade University allowed all who met general requirements to enroll in its faculties; enrollment was limited only in the technical, medical and law-economics faculties in Nis and Pristina. Recently, however, some of the faculties are again requiring qualifying examinations of all candidates.[6]

The University of Novi Sad limits enrollment in two of its seven faculties (mechanical engineering and medicine). While Sarajevo University is against the idea of entrance examinations, it forsees their use at the Technical faculties. At the University of Ljubljana there is no limitation on enrollment; instead, the University looks to a candidates secondary school record and to his first year accomplishments as a test of his ability.

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[5] *Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva* (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), pp. 79, 83-84. Also: "Uslovi za Upis na Fakulteti u Nekim Zemljama" (Basis for Admission to Faculties in Some Countries), *Revija Skolstva i Prosvetna Dokumentacija* (Review of School and Educational Documentation), No. 3-4, (Belgrade: Yugoslav Institute for Educational Research, 1965), pp. 291-292.

Entrance Requirements for the College of Administration

The following groups of students may enroll in the two-year college of administration (See Chapter V for the curriculum of this school):

(a) Those who have completed a corresponding secondary school of at least three years duration and one which requires the completion of the eight-year elementary school;

(b) Those who have completed an adult school providing the same training;

(c) Those who have completed two years of secondary school training and have three years of administrative experience and are at least 20 years of age;

(d) Those who have less training than indicated in (a), (b), (c) above, but who have completed the eight-year elementary school and have five years of administrative experience and are at least 22 years of age.

The term "corresponding" secondary school referred to in (a) above includes the gymnasium, secondary economic school, teacher training secondary school, secondary technical school and a political school of secondary rank.

Candidates who fulfill conditions in (a) and (b) above are not required to take an entrance examination. All candidates included in section (c) and (d) must pass an entrance examination for admission to this school.[6]

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[6] Statut Visje Upravne Sole v Ljubljani (Statute of the College of Administration), (Ljubljana: 1964), Articles 79, 80,82, pp. 21-22.

Citizens Without Formal Qualifications

The opportunity for citizens without formal school training to attend institutions of higher learning was first provided by the General Law on Education in 1958. This provision of the Law was primarily designed for gifted persons who were unable to acquire regular schooling in their youth. In 1962/63, only 19.2 per cent passed the entrance examinations, while recently, the percentage of successful applicants has climbed to approximately 50 per cent.[7] This increase was no doubt influenced by seminars and other courses organized by the Worker's and People's Universities and other institutes to help workers prepare for the university examinations. Formerly, most applicants showed an interest for study in the fields of law, economics and philosophy. Recently, there has been a shift to study in the field of technical sciences.

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[7] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., p. 79. See also: Basic Aims and Principles of Workers' Training. (Belgrade: Confederation of Trade Unions of Yugoslavia, 1964), p. 16.

Scholarships, Student Welfare and Loans

Education at all schools of higher learning in Yugoslavia is free; no fees or taxes are charged. A majority of students enjoy free medical care, while others pay half of the actual cost of medical treatment and medicine. All students up to the age of 23 or 25 (depending upon the duration of studies), one of whose parents is employed and fulfills certain conditions, will receive a children's allowance until the completion of their studies. In 1963/64, 40,215 students at institutions of higher learning received this allowance. In addition, students who are in need are eligible for scholarships. A student may receive both an allowance and a scholarship. In 1963/64, 21,150 students (19.8 per cent) received scholarships.[8]

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[8] Marijan Filipovic, "Higher Education in Yugoslavia," *Studies*, 6 (Beograd: 1965), p. 28.

MILLERS FALLS
EZERASE
COTTON CONTENT

In recent years, the percentage receiving scholarships has declined. (See Table 33). The decrease was evident only at university faculties, while the number of scholarships at other institutions of higher learning remained relatively the same. In the 1964/65 school year, 20,910 students at institutions of higher education received scholarships; of these students, 70.9 per cent were at faculties, 22.7 per cent at two year colleges and 6.4 per cent at art academies and advanced schools. Two years earlier, in 1962/63, faculties accounted for 75.8 per cent of the total scholarships.

The number of scholarship holders in 1964/65 decreased at all faculties except at the natural science-math faculties and at the Faculty of Political Science in Zagreb. The largest number of scholarship holders in university faculties were in the fields of economics and engineering, while the largest number in two year colleges were in the teaching, technical scinece and economics fields.[9]

In 1961, a system of student loans was introduced in which "credit funds" were established in individual republics. Since then, communes and economic organizations have also established similar funds, but because of limited assets, the number of students benefiting from such funds is still small.

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[9] "Scholarships and Credits granted to Pupils and Students," Yugoslav Survey, Vol. VII, no. 26, (Belgrade: Federal Secretariat of Information, July-September 1966), pp. 3840-3841.

Table 33 --Students on Scholarship in Schools of Higher Education

Year	Total Students	Students on Scholarship	Percentage
1958/59	78,911	22,031	27.9
1959/60	83,993	24,143	28.7
1960/61	94,760	27,713	29.2
1961/62	103,261	27,472	26.6
1962/63	106,439	24,449	22.9
1963/64	106,626	21,149	19.8

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 330.

Students who satisfy certain requirements may obtain loans which are repaid either in a lump sum or in monthly installments upon completion of studies. In repaying the loan, students are entitled to partial reduction depending upon the duration of studies and their academic record. If a student obtains excellent grades, the entire debt is cancelled.

Scholarships may be granted by government bodies, schools, communes, economic organizations and foreign donors, but only through the schools or other educational bodies. The scholarships are awarded on a competitive basis and are paid for 12 months of a year.[10]

Some problems with regard to scholarshipships include the following: A need for more scholarships in the area of technical science, a need for more participation on the part of economic organizations in making funds available, the establishment of better criteria for selecting scholarship students, and a need to improve the system of loans and credits.

Foreign Students

Foreign citizens may study at Yugoslav universities under the same conditions as Yugoslav citizens provided they satisfy the prescribed entrance requirements. Certain categories of foreign students are exempt from qualifying examinations: Holders of a Yugoslav Government scholarship, students whose studies in Yugoslavia are arranged through certain bodies, institutions and organizations, and children of Yugoslav pre-war emigrants who live abroad and come to Yugoslavia to study.[11]

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[10] Filipovic, *Studies*, *op. cit.*, p. 29.
[11] Filipovic, *Higher Education in Yugoslavia*, *op. cit.*, p. 35.

In 1963/64, there were 1,181 foreign students attending first and second level studies in Yugoslavia, and 109 enrolled in post-graduate study. More than half of the students were on scholarships granted by the Yugoslav Government or by Yugoslav economic and social organizations. Most scholarships for first and second level studies are applied for by students from the Afro-Asian countries, while European students apply primarily for post-graduate study scholarships.[12]

Student Organizations

Over 85 per cent of Yugoslav students are members of the Yugoslav Federation of Students. This organization is primarily a political and educational association whose basic task is "socialist education". The Federation encourages students to engage in political and social activity so that following graduation they will become active in the social and political life of the community. In addition, the Federation concerns itself with all questions involving the life and work of students. The Federation of Students is represented in the Association of Yugoslav Universities.

Each faculty and advnaced school has a Student Union, which is the basic organizational unit of the Federation of Students. Each university has a Student Board elected by delegates of all student unions, which governs the work of all affiliated student unions.[13]

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[12] Filipovic, Studies, op. cit., p. 30.

[13] Filipovic, Higher Education in Yugoslavia, op. cit., pp. 38-39.

The Union of Students of Belgrade University, in addition to its concern for the education of students, is also interested in their material problems: Housing, scholarships, medical treatment, textbooks, vacations, etc. It also considers one of its most important tasks to be the development of the students' social activities and the encouragement of their interest in social, political and other problems.

There are many societies and clubs attached to the University of Belgrade. These are independent in their work but are organized and managed by the Union of Students. There are clubs for those interested in various branches of art, debating groups, social clubs, a United Nations club, athletic clubs and other groups.

Every year the Belgrade Union of Students organizes competitions and exhibitions in literature, music, and painting. The Union publishes its own newspapers and magazines and receives financial assistance from the University. Students may also join unions and clubs in their home towns or in other cities where they spend summer and winter holidays, and they may also participate in voluntary work projects.[14]

The Federation of Students cooperates with over 95 national and 14 international student organizations. An important international activity of the Federation is its program of student exchange. Through the Bureau of International Exchange, over 3,000 Yugoslav students visited various European Countries in 1964, while 10,000 foreign students visited Yugoslavia.[15]

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[14] Milcjko Drulovic, "Fifty Years of the University of Belgrade," *Jugoslavia*, 13 (1957), p. 31.

[15] Filipovic, *Studies*, *op. cit.*, p. 27.

Student Centers

Student Centers have recently been established in many university towns. These centers include residence halls, study halls, restaurants, theaters, shops, assembly halls, recreational and other facilities for students. The centers were first established in 1959, and are a close counterpart of the student unions in the United States.

Student residence halls and restaurants are financed by the State. In 1963/64, there were 52 residence halls which accommodated 24,437 students; student restaurants served approximately 45,000 students.[16]

A lively activity at the Zagreb Student Center is the Tribune speaking lectures--"5 Minutes Past 8". Programs are offered five times weekly and include discussion of current issues and other topics. Well known names in political, economic, cultural and artistic life come to the Center to give lectures. Following each lecture there is a discussion period which often lasts two to three hours. Questions from the audience are written and anonymous. The lectures attract a great number of people. In 1963, 90 lectures were given which were attended by 27,000 people. The Zagreb Student Center also has a Music Hall which operates as part of the "5 Minutes Past '" program. From 1960 to 1963, 87 concerts were performed for 24,000 listeners.

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[16] *Ibid.*, p. 29.

Student Management

Students participate in the management of universities and faculties. The Faculty and University Councils include student members who are elected by the students themselves from among their own ranks by secret ballot. Student members participate equally in handling all questions and problems connected with the life and work of students. Student members are also entitled to attend meetings of the University and Faculty Boards when questions of interest to students arise, but they have no voting rights.

Together with staff members, students jointly manage their residence halls and restaurants. Students also have a certain degree of influence in bodies granting scholarships and loans to students.[17]

Examinations and Grading

Examinations in Yugoslav schools of higher learning are held following the completion of each subject or, in some cases a group of subjects. In compulsory subjects, examinations are conducted by a professor or commission of professors or other qualified personnel. Examinations are oral and/or written and are usually held in June, September, and January. At some faculties, senior students may take examinations throughout the year. In minor subjects, some faculties require only a short oral test.

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[17] Filipovic, Higher Education in Yugoslavia, op. cit., p. 30.

The system of grading varies at different universities: At Belgrade, Novi Sad and Skoplje University, grades range from 5 to 10; at Sarajevo University, grades range from 1 to 10 with 5 being the lowest to pass; at Zagreb and Ljubljana University grades range from 1 to 5 (1 being the lowest mark).

Each faculty fixes the number of examinations which each student must pass in order to be admitted to the following year of studies. Admission to the next higher year is usually dependent upon passing either all or about two-thirds of the examinations from the previous year.[18]

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[18] *Ibid.*, pp. 27-28.

CHAPTER VII

TEACHING STAFF

From 1956/57 to 1964/65, the number of teachers in four-year institutions of higher education has more than doubled, while teachers in the two-year colleges increased by more than four times. In 1956/57, there were 5,592 teachers and assistants in faculties, advanced schools and art academies which increased to 11,927 in 1964/65. During the same period, the number of teachers and assistants in the colleges rose from 826 to 3,822.[1] It is of interest to note that out of the 11,927 teachers and assistants in the four-year institutions in 1964/65, there were only 3,869 full-time teachers. (See Table 34).

Categories of Teaching Staff

Teaching staff at university faculties, advanced schools and art academies consists of senior and junior staff members. The former group includes full professors, associate professors, "docents", senior lecturers, and lecturers. Assisting this group are the junior staff members which includes assistants, demonstrators, readers and instructors.

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[1] Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 328.

Table 34--Teachers in Four-year Institutions of Higher Learning

School Years	Teachers and Assistants		Teachers		Assistants	
	Total	Full Time	Total	Full Time	Total	Full Time
1956/57	5,592	3,890	2,476	1,668	3,116	2,222
1960/61	8,214	5,697	3,346	2,367	4,868	3,330
1961/62	9,559	6,600	4,253	2,949	5,306	3,651
1962/63	10,492	7,281	4,970	3,366	5,522	3,915
1963/64	11,419	7,742	5,530	3,641	5,889	4,101
1964/65	11,927	8,050	5,914	3,869	6,013	4,181

SOURCE: Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 55.

Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 327.

Members of the senior staff teach, give examinations, direct studies and research, and take part in the work of the faculty and management bodies. Junior staff members assist professors in their research, teach under supervision of a senior staff member, and assist in conducting examinations.[2]

Requirements for Positions

A Doctor's Degree is generally required for the position of full professor and associate professor. A "docent" may be appointed on the basis of a Master's Degree or Sepcialization Degree, although some faculties, especially those offering courses in the humanities, require a doctorate. Published scientific or research work, or other notable achievements may be recognized as equivalent to the Doctor's Degree, Master's Degree or completion of the specialization course.[3]

The positions of lecturer and senior lecturer were instituted by the General Law on Universities and Faculties in 1960. These positions are equal in rank and salary to those of docent and associate professor respectively, but applicants for these posts are not required to have a Doctor's or Master's Degree. Requirements do include a university diploma, practical experience and teaching ability. Senior lecturers are expected to have a number of published works.

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[2] Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), p. 31.

[3] Ibid., p. 32.

Members of the junior staff must be university graduates. Demonstrators and instructors are usually recruited from among more experienced assistants. Readers are appointed only in faculties where a foreign language is taught as the major subject.

Selection and Re-election of Teaching Staff

Appointments to teaching positions are made on the basis of competition. The competition is announced by the faculty council and applicants are selected by the faculty board with the council's approval. Docents, senior lecturers and associate professors must be re-elected every five years, while lecturers are elected every three years. Only full professors are exempt from re-election.[4] Junior staff members are also subject to re-election after a period of three to five years.

The law provides that a full professor may be subject to re-election, if it is shown to be in the interest of teaching and research at the faculty. In such a case, the professor who holds the position for which a competition has been opened may also take part in it. A full professor is elected by majority vote of professors and associate professors; other senior staff members are elected by the senior staff.[5]

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[4] _Ibid._, pp. 32-33.

[5] _Ibid._, p. 33.

Full professors may also be appointed by "invitation". In such a case, an eminent scholar whose publications have gained recognition or a full professor from another faculty may be appointed without advertising a competition for the respective vacancy.

Advanced schools and art academies have the same categories of junior and senior staff. However, teachers at art academies are in two groups: one for theoretical and one for practical subjects.

Faculties also employ part-time teachers, who have the same rank as members of the full-time staff. They are elected in the same manner and under the same conditions as full-time teachers.[6]

Problems Related to Teaching Staff

Although the number of teachers in schools of higher education has been increasing steadily, a shortage still exists, particularly at newly established faculties. The lack of teachers has been attributed largely to low salaries and the need to improve working conditions. In order to increase the available teaching staff, a significant number of assistants, and even some lecturers, have been recruited from industrial organizations and other institutions.

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[6] Ibid., pp. 33-34.

Among other problems there is a need to stimulate teachers to write textbooks, to develop uniform criteria for selecting teachers, and to improve the method of teacher re-election so that it does not become an automatic promotion instead of being a stimulant for further scientific and vocational improvement. Suggestions are being made to advance teachers only following the second re-election.

CHAPTER VIII

ADMINISTRATION

Principle of Self-Management

The administration of higher education is based upon the theory of decentralized control and local institutional autonomy through application of the principle of self-management. In accordance with the Constitution, education is under the jurisdiction of the Republics and local authorities; the Federal Government is responsible for establishing general policy and recommending standards and goals in education.

The 1963 Constitution emphasizes the independence of schools, considering them working organizations and self-managing institutions. The Constitution provides that each educational institution shall issue its own statute which is passed by the school itself and confirmed by the assembly of the socio-political community. The statute establishes the internal organization of the institution, its competence and responsibilities, its methods for decision making, its internal relations, and other questions of importance to self-management and the activity of the school.[1] Educational institutions also make decisions regarding the use of funds placed at their disposal, determine questions of curricula and salary of professors.

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[1] Rodoljub Jemuovic, Obrazovanje i Reforma (Education and Reform), (Beograd: Sedma Sila, 1966), p. 38.

From 1954 until the adoption of the new Constitution in 1963, the administration of institutions of higher education was based upon the principle of "social management". This type of management signified a system under which the respective institution was managed not only by its members, but also by other citizens as representatives of the community or social organizations. Following the adoption of the Constitution, the principle of "self-management" was proclaimed in all working organizations, including institutions of higher learning.[2] Under the new principle, a greater portion of school administration is in the hands of the working collective. Formerly, the School Council was composed primarily of citizens representing the community. This has been replaced by school councils whose members are largely elected from the staff of the institution in question.[3] The Federal Constitution provides that representatives of society which serve on school councils may not limit self-management by the "worker's collective" in any school. Only the teaching and other personnel in the school may decide on the work of its institution and on the distribution of funds granted by the community.[4]

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[2] Marijan Filipovic, "Higher Education in Yugoslavia," Studies, 6 (Beograd: 1965), p. 35.

[3] "School Councils, Greater Rights for Staff Members," Yugoslav Life, X (June, 1965), p. 8.

[4] Jemuovic, Obrazovanje i Reforma, op. cit., p. 36.

Following the 1963 Constitution, the General Law on Schools was amended (1964) to contain only general provisions and the 1960 Law on Universities and Faculties was repealed. In accordance with the Constitution, Republics have passed new acts on education and most schools of higher learning have reorganized their programs and passed new statutes.

Organs of School Administration

According to new regulations on self-management, administrative bodies at institutions of higher learning consist of the school council, the administrative board, and the dean or director of the school.[5] These new bodies were expected to be functioning in the latter part of 1965.

Because of the recency of events and lack of adequate information at the time of this writing, the composition and function of these new bodies can not be fully elaborated here. Brief information, however, indicates the following: The school council has from 15 to 30 members, depending upon the size of the school, who are elected primarily from the school staff.[6] There are also a certain number of members who are representatives of the community (economic and social organizations, municipal assembly, etc.) School councils of schools with second level studies also are composed of representatives of students.[7]

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[5] Filipovic, Studies, op. cit., p. 38.

[6] Yugoslav Life, X, op. cit., p. 8.

[7] Report on the Educational Development in the 1964/65 Academic Year, Federal Secretariat for Education and Culture, (Beograd: 1965), pp. 4-5.

The school council is the policy-making organization of the school and concerns itself with the entire range of school activities (educational, social and financial). The school council draws up draft statutes, invites applications for teachers, considers the work of the faculty, takes care of the welfare of students and exercises many other functions. Members of the administrative board are chosen by the members of the council. The administrative board executes decisions of the council.

The dean, or director, is chosen by the council, at the proposal of a joint commission of council members and the founder of the school. The director is a member of the administrative board, and must attend council sessions although he is not a council member.[8] The dean is elected to a two-year term. To relieve the dean of various administrative and executive affairs, the Secretary of the faculty or other school of higher learning handles the day-to-day work of the school. There is also the teacher's council which is composed of the teaching staff and a certain number of assistant teachers. The council considers questions in the field of instruction. Students, too, have their own bodies and organizations based on the principle of self-management.

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[8] _Ibid_.

University Administration

The administration of universities under the system of "social management" includes the University Council, the University Board and the Rector. Information is not available whether these bodies have been changed under the new system of "self-management".

The University Council under the system of social-management consists of members appointed by the executive council of the Republic from among educational, scientific and other workers active in public life, members elected by faculty councils and independent research institutions (1 each), members elected by economic and professional organizations concerned, one member elected from the communal assembly of the town where the university is located, three student representatives from the Association of Students, and the rector (president) and vice-rector. All members of the Council serve for three years. A chairman, elected by secret ballot presides over council sessions. The Council concerns itself with general university policy, the general organization of education in the university as a whole and various matters which require community cooperation.[9]

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[9] Filipovic, Studies, op. cit., p. 36.

The University Board is composed of the rector, vice-rector and deans of all the faculties (who are ex-officio members). The rector presides over the meetings of the Board. The Board concerns itself primarily with the organization of teaching and research at the university, prepares analyses of problems to be decided by the University Council, approves research plans of university institutions and decides upon the granting of university doctorates.

Once a year, the University Board convenes a university conference, in which it elects the rector and vice-rectors to a three-year term of office and discusses the report of the work of the university. The conference is composed of senior staff members and a certain number of assistants and junior staff members.

The rector of the university presides over the meeting of the University Board, convenes meetings of both the Board and the Council, executes their decisions, sees to the observance of statutes and performs other executive functions.[10]

Chambers for Education and Culture

The principle of self-management has also been applied to the establishment of chambers for education and culture in the Federal, republic and municipal assemblies. Representatives to these bodies are exclusively from the educational and cultural fields.[11]

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[10] Ibid.

[11] Milos Nikolic, "Current Aspects of the Cultural Policy of the League of Communists in Yugoslavia," Data on Yugoslavia, (Beograd: Press Service, 1964), p. 10.

Financing of Schools

The Federal Assembly on May 14, 1966, passed the new General Law on Financial Funds for Education (See Appendix B). The Law is a general one and the six republics will introduce laws of like kind for their territories. The Law will go into effect in 1967.

The Law is concerned primarily with the source of funds for education, their application and administration. Replacing the former method of budget financing, financing is placed on a new foundation in which financial resources for operation are administered on the principle of self-management. This constitutes an essential difference from the earlier practice of financing education through the budgets of the communes, republics and the federation with their administrative influence on the policy of educational organizations.

The new Law guarantees an independent material base for the operation of educational institutions. It allocates to education a definite percentage of gross personal earnings of all employed persons (at present 5 per cent), of private profits from agriculture, of earnings from other self-employed persons, and a percentage of investment funds and the purchase tax. Amortization is also being introduced for school buildings.

E-Z-ERASE
COTTON CONTENT

Among the stated sources of funds, the special contribution for education from the personal incomes of citizens who are employed or earn money by supplementary and part-time activities (farmers, craftsmen and other self-employed persons, etc.) constitutes the basis of the system, both from the point of view of principle and economy. Private citizens, however, may also donate funds for specific educational activities in which they are interested, to meet certain common needs in the field of education and to pay students' fees for living quarters or fees for courses which are not taught at school (music courses, certain foreign language courses, etc.).

Schools will be financed on the basis of the fixed price of their work and according to the results they achieve. If instruction is better organized in a particular school and if the pupils are generally more successful than in other schools, that school will receive more for its work and for staff incomes.

The school funds will be managed by autonomous bodies called "educational communities" which will be made up of representatives of all those directly concerned in educational work, for example, representatives of schools and university faculties, economic enterprises, and citizens who contribute directly to their maintenance.

The educational communities will have the status of corporate bodies, and they will deal with all questions in the field of education which are of general and common interest for a specific area and decide on those questions in accordance with the authority granted to them by law. In addition, they will administer funds for financing education, determine which activities shall be financed and fix criteria for distributing funds in accordance with general regulations (Basic Law on Institutions) and in accordance with pedagogical and other standards.

Every educational community will have its own statute which determines the composition of its individual organs, the scope of its activities, and the disbursement of funds, etc. The assembly of the district will approve the statute and retain the right to examine the work of the educational community.

In addition, a separate federal law is being considered which would provide that a part of the funds which are placed in capital investments be set aside for education as a permanent source of funds for educational activities.[12]

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[12] "Financing Education in Yugoslavia," Yugoslav Life, XI (June, 1966), p. 1. See also: General Law on the Financial Funds for Education, Federal Assembly, (Beograd: May 14, 1966), see Appendix B.

Coordination of Schools of Higher Education

Cooperation among Yugoslav Universities was first systematically effected in 1957 through the establishment of the Association of Yugoslav Universities. The Association was formed for the purpose of discussing questions of common interest to all universities in the country. Problems with which the Association has been concerned include: Coordination of studies, conferring of academic and scientific degrees, establishment of criteria for selecting teaching staff, distribution of personal income, welfare of students and advancement of scientific research. The Association also has sought to promote intra-university exchange of experience, cooperation between Yugoslav and foreign universities, and cooperation with international university organizations, and has issued publications on the work, activity and problems of Yugoslav universities.[13]

Much has been done by the Association to coordinate the instruction, curricula and programs of the universities. However, the work of the Association is limited since advanced schools, art academies and colleges are not included in the Association, and some faculties, not associated with universities are also excluded (for example, the Law Faculty in Split). Moreover, the Association has not maintained ties with other professional associations of higher education.[14]

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[13] Filipovic, *Studies*, *op. cit.*, pp. 38-39.

[14] *Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva* (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), p. 114.

In addition to the Association of Yugoslav Universities, there are associations of faculties, advanced schools and colleges which have developed within the separate republics. These include associations of related institutions of various levels and regional associations.

Associations of related faculties hold "inter-faculty conferences" at which problems relating to the organization of instruction and research are examined. These include the coordination of studies, transfer of students, school finance, titles for graduating students, and minimum standards for passage from first to second level studies.[15] Conferences are held annually or every other year, and decisions which are adopted become recommendations to the faculties concerned. The inter-faculty conferences have begun to acquire greater significance and are gradually being transformed into associations on a nation-wide or republican level.[16] Inter-faculty conferences have had considerable influence on the adoption or rejection of level studies.

At its conference in 1964, the Association of Yugoslav Faculties of Forestry recommended the following: (1) to adopt national requirements for graduation from these faculties; (2) to establish a basic minimum curriculum; (3) to organize the curriculum to include a minimum number of subjects mandatory for all forestry faculties in the country and to ensure their same designation; (4) to organize the curricula so as to cover a four-year period of study; and (5) to require entrance examinations.[17]

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[15] _Ibid_., p. 116.

[16] Filipovic, _Studies_, _op. cit_., p.39.

[17] _Yugoslav Survey_, Vol. VII, no. 24, (Belgrade: Federal Secretariat of Information, January-March 1966), pp. 3515-3516.

There is only one association in Yugoslavia which incorporates all schools of higher education in its territory. This association was established in Slovenia in 1961/62.[18] It is felt that an organization of this type should be developed for the whole country.

Associations of Schools of Higher Education in 1965/66

At the beginning of the 1965/66 school year there were a total of 18 professional associations of higher educational institutions in Yugoslavia. These are classified into the following groups:[19]

National Association of Yugoslav Universities. Established in 1957, the Association's membership includes all seven universities in Yugoslavia.

National Associations of Related Institutions of Higher Education. By the end of 1965, there were three national associations of related university faculties and one association of related advanced schools: Association of Yugoslav Faculties of Forestry (established in 1963--five members); Association of Yugoslav Medical Faculties (established in 1963--comprising all eight medical faculties in the country); Association of Yugoslav Faculties of Mining Engineering (established in 1964--five members); Association of Yugoslav Advanced Schools of Physical Education (established in 1964--four members.

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[18] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva, op. cit., p. 117.

[19] Yugoslav Survey, no. 24, op. cit., pp. 3517-3518.

National Associations of Related Two-Year Colleges. By the end of 1965, only one association of this type--the Yugoslav Association of Colleges of Economics--had been established (founded in 1962--comprising all twenty colleges of economics in the country).

National Associations of Related Faculties, Advanced Schools and Colleges. There is only one association of this (established in 1961)--Association of Agricultural Schools of Higher Education. It includes all schools of this type in Yugoslavia.

Republican Associations of Related Faculties and Colleges. There are eight such associations: Association of Pedagogical Academies of Bosnia-Hercegovina (established in 1962--four members); Association of Pedagogical Academies of Croatia (established in 1962--comprising all fourteen academies in Croatia); Association of Agricultural Colleges of Croatia (established in 1962--five members); Association of Faculties of Law and Administrative Colleges of Serbia (established in 1962--12 members); Association of Building Engineering and Geodetic Faculties and Colleges of Serbia (established in 1962--six members); Association of Electrical Engineering Faculties and Colleges in Serbia (established in 1963--five members); Association of Technological and Metallurgical Faculties and Colleges of Serbia (established in 1963--eleven members); and the Association of Mechanical Engineering Faculties and Colleges of Serbia (established in 1964--thirteen members).

Republican Associations of All Higher Educational Institutions within a Constituent Republic. This type of association exists only in Slovenia: The Association of Higher Educational Institutions in Slovenia. The association was established in 1962 and comprises all higher educational institutions in Slovenia: 9 faculties, 3 advanced schools, 3 academies of art, 13 colleges, the University of Ljubljana and the Association of Higher Educational Institutions in Maribor.

Communal or Municipal Associations of Higher Educational Institutions. Only three such associations have been established thus far, namely: Association of Higher Educational Institutions in Maribor (established in 1961--six members); Association of University Faculties and Colleges in Split (established in 1964--five members); and Association of Higher Educational Institutions in Rijeka (established in 1964--eight members).

CHAPTER IX

CHARACTERISTICS OF THE SYSTEM AND PROPOSALS FOR THE FUTURE

Education, which is considered an essential element for national and personal advancement, has had a dynamic development in Yugoslavia in recent years. Reform of the educational system began to be systematically pursued in 1958 and has since continued by the modernization of the educational processes in conjunction with the general development of the country. Where one method of training did not succeed, another one was formed and tried. What is reported in this study may be changed shortly as the development of education in Yugoslavia is still in a state of flux.

The establishment of schools in various parts of the country has provided greater opportunities for students to attend institutions of higher learning. Education now reaches beyond the school age children and youth and is sought also by thousands of full time workers. Part-time education is widespread.

Today, there are approximately 130,000 teachers in schools and other educational institutions. Before the Second World War there were only 43,000. Taking into account the 10,000 teachers killed during the War, there has been an increase of over 400 per cent. The international comparison shows that the Yugoslav pupil/teacher ratio for the whole school-age group is better than that of France, the Netherlands, the Federal Republic of Germany and all other Mediterranean countries with the exception of Italy.[1]

A study of recent developments in the educational system in Yugoslavia shows that significant strides have been made in attempting to raise the educational level of its citizens. The great zeal, dedication and enthusiasm of the Yugoslav people for education reflects not only their pride in accomplishment and their firm belief that education is needed to build a new society, but that education is also a way for the future in meeting the needs of the individual.

Expansion of Education

It is expected that by 1970, higher education will incorporate 6 to 7 per cent of school-age youth, increasing to 10 per cent in 1975. (In 1964/65 the percentage was 4.5). To achieve this goal, it will be necessary to increase the capacity of existing schools and to found new institutions to produce personnel for jobs that science and technology will require. At the same time, it will be necessary to produce a more highly qualified graduate.

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[1] _Mediterranean Regional Project Country Reports: Yugoslavia_, (Paris: Organization for Economic Co-operation and Development, 1965), p. 59.

The primary task will be to stabilize and consolidate the presently expanded network of higher institutions, to further raise standards of schools, to provide needed equipment and other facilities, to increase the number of qualified teachers and to raise the level and quality of teaching.

In higher education, enrollments have expanded at a pace, which in comparison to other countries may be considered extraordinary. Total enrollments increased by no less than 37.4 per cent in 1960/61 compared with the previous year. There were 142,434 students in higher education in 1960/61, which was more than double the number of students five years previously, and one of the highest enrollment rates in the world.[2]

The number of engineeers is expected to increase to 70,000 in 1975. In 1960 there were only 15,300 engineers. In the same fifteen year period agronomists and veterinary surgeons are expected to rise from 11,400 to 36,000, economists and lawyers from 21,500 to 52,000, and technicians from 170,000 to 773,000.[3] Graduates from the philosophy and natural science mathematics faculties are expected to increase significantly particularly due to the demand for secondary teachers. In 1960, these graduates numbered 19,100. By 1975, 64,000 graduates are expected. Enrollments at various levels are expected to increase by 1975 as follows: At the primary level by 21 per cent; at the secondary level, 202 per cent, at the higher level by 236 per cent.[4]

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[2] *Country Reviews: Yugoslavia*, (Paris: Organization for Economic Co-operation and Development, 1962, pp. 11-12.

[3] *Mediterranean Regional Project Country Reports*, *op. cit*. p. 22

[4] *Ibid*., pp. 98, 100, 92.

Level Studies

With the introduction of level studies in faculties, advanced schools and art academies, it was possible to train personnel faster, in greater numbers, and with varying degrees of competency. The inclusion of two-year colleges in the system of higher education brought about greater flexibility to the system providing that all who finish level studies, whether at colleges or faculties, have the right to proceed to the next higher level.

The complete reorganization of higher education brought with it certain problems and difficulties. Among these were inadequate financing, lack of qualified personnel, and overextensive curricula. It is still too early to adequately evaluate the results of the levels program. More research is needed to determine the adequacy of its organization, coordination of programs, and placement of graduates. In the coming period curricula will need to be further adjusted to meet the needs of the economy, and programs better coordinated among the various schools training the same type of graduate. In some cases, however, it may be advisable to abolish level studies in certain faculties where the nature of the subject is not amenable to such a program.

A question still to be resolved is whether curricula in colleges should be the same as first level studies in faculties. Most educators believe that the colleges can and should prepare a more narrowly trained expert than that at the first level in faculties, and for this reason should have their own specialized programs. It is also felt that passage of graduates from colleges to second level studies should be based on supplementary examinations.[5]

Post-Graduate Study

In the coming period it will be necessary to further develop third level, or post-graduate study, to produce needed expert personnel for the economy, social services, and for instructional and scientific institutions. There is also a need to develop inservice training for teachers and other workers in higher education, to make better use of teaching staff and materials through inter-faculty exchanges, to upgrade the quality of the program as well as students, to increase student scholarships and loans, to develop a stricter selection of both students and teachers, to coordinate curricula, to extend greater opportunity to part-time students, and to broaden the base of financial resources.[6]

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[5] Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education), Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture), (Beograd: 1963), pp. 129-130.

[6] Ibid., pp. 130-133.

In order to further develop scientific research work, there is a need to further develop inter-faculty and inter-university institutes in a specific branch of learning. This has already been started in some republics and is an aid to third level studies.[7]

Part-Time Studies

Although much has been done since the reform to develop part-time studies, there is still a need to further improve the program. Measurers are being taken to provide greater financial assistance for students, to more precisely define their rights and duties, and to offer everypossibility to workers to continue with their studies without leaving their jobs (night school and correspondence courses).

Future Tasks in Higher Education

In order to achieve the goals of higher education as established by the Reform, Yugoslav educators feel that attention in the future must be given to the following:

--To more closely associate higher educational training with practice, to shorten the duration of studies, to raise the general standards and quality of education, to reduce the dropout rate, and to get more students to graduate;

--To reduce duplication in scientific research in universities and institutes, and to increase "professor exchange" among faculties;

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[7] *Ibid.*, p. 133.

--To increase the number of qualified teachers in schools of higher education (in some schools there is a very high proportion of "honorary" teachers), to further train and prepare university staff, to improve the system of re-election, and to alleviate the teacher shortage which affects the development as well as the quality of higher education;

--To improve the qualifications of teachers in newly established faculties, to improve the contact of part-time teachers with students, to improve contacts between students and teachers particularly in first year studies, to improve working conditions of teachers and to raise salaries;

--To reduce verbalism in teaching and "textbook education" which places students in a passive position instead of an active one;

--To offer pedagogy at medical and veterinary faculties;

--To create better material conditions for students through scholarships, credits and loans, to make improvements in student dormitories, restaurants, libraries and physical education facilities;

--To lengthen the duraction of studies in certain areas (Certain technical faculties have extended the prescribed length of studies from 8 to 9 and 10 semesters. It is felt this lengthening of studies would actually shorten the time required to complete training, since the average now is 6 years, and there would be a better distribution of studies per year, making it easier for the student);

--To integrate science and education;

--To raise the level of students coming to the universities, to strengthen secondary education, to increase enrollments in secondary education, and to guide graduates into jobs for which they are prepared (In 1961, 53.2% changed professions);

--To modernize education, to introduce programmed instruction and teaching machines, to coordinate and improve the quality of school programs, to provide better textbooks since poor ones lower standards of study, and to coordinate school curricula and develop uniform admission requirements;

--To face the problem that to continue to provide textbooks in the three languages of the Yugoslav nation and in the languages of the minority groups will be extremely expensive;

--To accompany the expansion of schools of higher education by more adequate preparations in terms of organization, personnel and financial investments;

--To encourage the acceptance by educational institutions in all parts of the country of Reform measures;

--To construct new and increase existing facilities and equipment; to methodically plan and research the quantitative and qualitative needs for personnel in the economy and social services and to determine the best methods to develop, stabilize and integrate institutions of higher learning;

--To provide closer and more direct contact between schools of higher learning and economic organizations, and to better the guidance system in secondary schools to help students select professions offered in higher institutions;

--To coordinate university activities through national associations of higher education which include all schools of higher education since self-management results in great differences;

--To expand the training of technical personnel and national science disciplines at the rate required by the country's development;

--To increase space in scientific-technical faculties and to develop schools according to local needs;

--To expand facilities so that a student will not be denied admission on the basis of limited capacity of schools.

PART III

TEACHER TRAINING

CHAPTER I

INTRODUCTION

Teacher training in Yugoslavia is provided in several different types of schools on both the secondary and higher level:[1]

The School for Pre-School Teachers (Skola za Odgajatelje) is a secondary school of four years duration which trains teachers for work in nursery schools, kindergartens and other institutions for pre-school education. Recommendations are being made to train these teachers in an institution of higher education--the Pedagogical Academy for Pre-School Teachers.

The Teacher Training High School (Uciteljska Skola) is a secondary school which prepares teachers for the self-contained classes of the lower elementary grades (1-4). Training lasts four to five years. Although the school has a long tradition, it is gradually being replaced by the Pedagogical Academy which is an institution of higher education. Some republics still maintain the teacher training high schools while in other republics, teacher training high schools have been transferred into pedagogical gymnasiums.

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[1] S. Pataki, Opca Pedagogija (General Pedagogy), (Zagreb: Pedagosko-Knjizevni Zbor, 1964), pp. 71-72.

The Pedagogical College (Visa Pedagoska Skola) is a two-year college which prepares teachers for the departmentalized upper elementary grades (5-8). There are no Pedagogical Colleges in the Republic of Croatia where the Pedagogical Academy has taken over the work of the Teacher Training High School and the Pedagogical College. In republics where the Pedagogical Academy has not been organized, the Pedagogical College functions along with the Teacher Training High School.

The Pedagogical Academy (Pedagoska Akademija) is a new institution of higher education for the training of elementary school teachers. Studies are two years in duration. Students are trained in a similar manner for both the upper and lower elementary grades. The curriculum consists of studies which are common to all students (social, pedagogical, psychological subjects) and specialized studies for teachers of the lower and upper elementary grades.

Faculties of Philosophy and Natural Science-Mathematics (Filosofski i Prirodoslovno-Matematicki Fakulteti) prepare teachers for work in the gymnasium and for general education subjects in all other secondary schools. Studies last four years. In addition to preparing teachers, these faculties also train students for scientific and other fields. Because of this dual role, recommendations have been made to establish Advanced Teacher Training Schools (Visoke Nastavnicke Skole) as independent institutions.

Advanced School of Industrial Pedagogy (Visoka Industrijsko-Pedagoska Skola) prepares teachers of vocational subjects (both theoretical and practical) for work in vocational schools. Located in Rijeka, there is only one school of this type in the country. Other needs for vocational personnel are met by graduates of the secondary schools, colleges, advanced schools and faculties who have also had pedagogical training.

Art Academies (Umjetnicke Akademije). In addition to its regular studies, Art Academies prepare teachers for art and music training in schools of general and vocational education. These students are required to take specific pedagogical courses.

Institutes and Advanced Schools for Physical Culture (Institut i Visoke Skole za Fizicku Kulturu) prepare teachers of physical education for work in general and vocational schools.

Advanced School for Teachers of Special Schools (Visoka Difektoloska Skola) prepares teachers for the deaf and hard of hearing, blind and partially blind, for students with speech impediments, and for the physically and mentally retarded and socially and emotionally disturbed.

The General Law on Education provides that all the above named schools shall participate in the continual inservice training of teachers, together with vocational associations, pedagogical centers, the pedagogical-educational services, and other institutes for the advancement of education.

CHAPTER II

PRE-SCHOOL TEACHERS

In 1960, there were approximately 1,000 pre-school institutions in Yugoslavia which enrolled six per cent of the pre-school age children.

Teachers for the pre-school institutions were first trained by means of special courses; later, through separate departments in teacher training high schools; and, finally, through special secondary schools founded for that purpose. The first such school was established in 1948/49. In 1963/64, there were seven secondary schools for pre-school teachers in which 1,831 students were enrolled. The course of study in the majority of schools lasts five years. Two of these schools, in Zagreb (See Table 35) and Rijeka, have a four-year program.[1]

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[1] Obrazovanje Vaspitaca za Rad sa Decom Predskolskog Uzrasta (Education of Nursery and Kindergarten Teachers for Work With Pre-School Children), Savezni Zavod za Proucavanje Skolskih i Prosvetnih Pitanja (Institute for Educational Research), (Beograd: 1961), pp. 17,29. See also: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 320.

Table 35 --Curriculum of the Secondary Teacher Training School for Pre-School Teachers

Subjects	Grades I	II	III	IV
Pre-School Pedagogy With Foundations in General Pedagogy	-	-/4*	7/2	2
Psychology	-	3	3	3
Methods in Education	-	-	-/8	8
Serbo-Croatian Language and Literature	5	4	4	5
Foreign Language	3	3	2	-
History	3	2	2	-
Social and Political Management of Yugoslavia	-	-	-	2
Geography	2	2	-	-
Biology	3	2	1	-
Mathematics	3	3	-	-
Physics	3	2	-	-
Chemistry	2	2	-	-
Philosophy With Sociology	-	-	-	3
Music Training	3	3	2	2
Art Training	3	3	2	1
Technical Training	-	-	1	2
Hygiene	-	-	2	-
Physical Training	2	2	2	2
Military Training	-	-	2	2
Total Hours Per Week	32	31/33	31/34	32

*Note: Split hours (7/2) indicate first and second semester.

SOURCE: "Nastavni Plan za Skole za Odgajatelje" (Curriculum for Pre-School Teachers), Prosvetni Vjesnik (Educational Review), 10 (Croatia: December 21, 1964), p. 139.

The number of students enrolling in secondary schools for pre-school teachers is actually very small. In addition, thirty per cent of those who graduate enter other vocational fields. One reason for this is that job placement in the cities is very difficult and many prefer to go into other fields rather than to accept positions in smaller towns and villages. In the republic of Croatia, teachers must have at least five years of experience before they will be accepted for placement in cities.[2]

Educational officials have felt that there are certain inadequacies in the secondary school program, and that training of pre-school teachers should be provided by an institution of higher education. Among the criticisms of the present program are the following:

(a) It is much too early, on the secondary level, for students to decide on such a vocation;

(b) The extensive curriculum over-burdens the students by trying to cover three areas of study: General education, vocational-pedagogical training, and technical-fine arts training;

(c) Certain general education courses (chemistry, physics, mathematics) are condensed to cover only the most basic material. Other subjects covering a great quantity of material are taught in a reduced number of hours;

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[2] Obrazovanje Vaspitaca za Rad sa Decom Predskolskog Uzrasta, op. cit., p. 119.

(d) Pedagogical study is begun early before the completion of general education subjects, and little time is devoted to it. Educational theory is provided in the last year when it should be presented much earlier.[3]

Proposals have been made to establish a pedagogical academy for training pre-school teachers. This school would be similar in number of hours to the pedagogical academy which trains teachers for the elementary school (30 hours per week, or 960 hours per year). More emphasis would be given to methods in the final semester than in the first three semesters. Practice teaching would be given twice per week, starting at the end of the third or at the beginning of the fourth semester.[4]

The proposed curriculum for the Pedagogical Academy is given in Table 36.

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[3] Ibid., pp. 34-37.

[4] Ibid., pp. 56, 87.

Table 36 --Suggested Curriculum For the Pedagogical Academy For Pre-School Teachers

Subjects	Semesters			
	I	II	III	IV
Foundations of Education and Society	2	2	-	-
Pre-School Pedagogy	3	2	-	-
Pedagogical and Child Psychology	4	4	4	-
Hygiene of Pre-School Children	3	3	-	-
Methods of Teaching	6	7	12	18
Mother Tongue and Children's Literature	3	3	3	2
Physical Education	2	2	2	2
Music	3	3	3	2
Fine Arts and Praktikum in Puppet Shows	4	4	4	2
Methodology of Work With Parents	-	-	2	2
Total Hours Per Week	30	30	30	28

SOURCE: Obrazovanje Vaspitaca za Rad sa Decom Predskolskog Uzrasta (Education of Nursery and Kindergarten Teachers for Work With Pre-School Children), Savezni Zavod za Proucavanje Skolskih i Prosvetnih Pitanja (Institute for Educational Research), (Beograd: 1961), p. 56.

CHAPTER III

ELEMENTARY TEACHERS

The reform of elementary education in 1958, which introduced the uniform eight-year elementary school, required the training not only of a new type of teacher, but also the reeducation of existing staff. Elementary teachers were, and still are, trained in many different types of institutions which vary also in duration and quality.

The rapid growth of both elementary schools and students which accompanied the economic, social, technical and cultural development of the country placed great pressure upon teaching staff. (See Table 37). The needed annual increase for elementary school teachers from 1958/59 to 1965/66 was set at 9,352.[1] The actual yearly increase of elementary teachers fell short of the required amount. (See Table 38). In addition, enrollments in pedagogical colleges steadily dropped in favor of industrial and technical schools.

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[1] Sprovodjenje Reforme Osnovne Skole, Nastavnici Osnovne Skole (The Carrying Out of Elementary School Reform), Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), (Beograd: 1963), p. 5.

Table 37--Development of Elementary Schools, Students and Teachers

	Schools	Students	Teachers			
			Total	Full Time	Men	Women
1938/39	9,190	1,470,973	34,663	34,120	18,523	15,597
1957/58	14,257	2,315,909	71,803	64,183	26,690	37,493
1958/59	14,342	2,426,920	79,686	68,107	28,257	39,850
1959/60	14,417	2,589,576	79,532	70,773	28,926	41,847
1960/61	14,527	2,764,369	84,279	82,757	34,685	48,072
1961/62	14,568	2,895,694	89,611	88,133	36,691	51,442
1962/63	14,459	2,960,199	93,434	92,157	38,042	54,115
1963/64	14,386	2,980,220	96,370	95,360	38,774	56,586

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 319.

Table 38 --Annual Increase of Teachers in Elementary Schools

Year	Teachers	Increase
1957/58	71,803	-
1958/59	79,686	7,683
1959/60	79,532	-154
1960/61	84,279	4,747
1961/62	89,611	5,332
1962/63	93,434	4,832
1963/64	96,370	2,936

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 319.

Lack of Teachers

One of the greatest problems in the realization of compulsory eight-year elementary education has been the lack of qualified teachers, particularly in the upper elementary grades. For certain basic subjects (mathematics, physics, chemistry, technical training, mother tongue, and physical education) teachers have been lacking. Reasons for this condition have been attributed to an inadequate supply of graduates from the teacher training institutions, the concentration of teachers in the larger towns and cities, the high rate of turnover, low salaries which cause teachers to enter industry, and because a significant number of teachers serve in administrative or similar positions.

As a result of the lack of teachers, a large percentage of those employed in elementary schools were required to teach more than the standard number of hours. In some cases, certain courses were reduced or completely cut. In Bosnia-Hercegovina, instead of lengthening courses to meet the needs of school reform, schools reduced the duration of their programs of study.[2]

Certain measures have recently been taken to increase the number of teachers. These measurers include the following:

(a) Increasing the capacity and expanding the network of existing schools and faculties for training of teachers;

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[2] *Ibid.*, pp. 8, 21-22, 23, 29.

(b) Opening pedagogical departments in gymnasiums and making it possible for gymnasium graduates to qualify for teaching;

(c) Providing for a system of part-time studies and other measures for the inservice training of teachers for upper elementary grades;

(d) Introducing first level studies at faculties which train teachers of special subjects for the upper elementary grades;

(e) Providing scholarships and other material aids for students:

(f) Retaining teachers due for retirement.[3]

Educational Qualification of Teachers

Although the educational attainment of teachers is slowly improving (See Table 39), a higher proportion of teachers with college training will be needed to fill the needs for upper elementary teaching staff. A significant number of lower elementary teachers have been teaching classes in the upper elementary grades. In 1962, only 30 per cent of those teaching in the upper elementary grades were qualified for these grades.[4]

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[3] Stanje i Problemi Nastavnickog Kadra (Status and Problems of the Teaching Profession), Secretariat for Education and Culture of the Federal Executive Council, (Beograd: 1962), pp. 26, 36.

[4] Sprovodjenje Reforme Osnovne Skole, Nastavnici Osnovne Skole, op. cit., pp. 14-15.

Table 39 --Educational Training of Teachers in Elementary and Secondary Schools, 1958/59 and 1962/63

Educational Training	Elementary Schools		Secondary Schools	
	1958/59	1962/63	1958/59	1962/63
University or Academy	5.6	5.8	47.6	53.5
Advanced School	0.0	0.2	0.8	1.7
College	15.2	17.6	12.9	13.7
Teacher Training High School or Art School	72.4	64.8	12.7	9.9
Gymnasium	3.2	6.9	2.9	4.0
Technical or Other Vocational School	0.8	1.8	14.8	10.7
School for Skilled or Highly Skilled Workers	0.1	0.4	6.5	5.5
Elementary School	2.7	2.5	1.9	1.0
Total	100.0	100.0	100.0	100.0

SOURCE: _Yugoslav Survey_, Vol. VII, no. 24, (Belgrade: Federal Secretariat of Information, January-March 1966), p. 3507.

Types of Elementary School Teachers

In elementary schools there are two types of teaching staff: The lower elementary grades (1-4) are taught primarily by teachers with secondary training; the higher elementary grades (4-8) are taught mainly by teachers who have been trained in higher schools.

In 1963/64, out of 96,370 elementary teachers, 52.9 per cent were lower elementary and the remaining 47.1 per cent were upper elementary teachers.[5]

Types of Teacher Training Institutions

Elementary school teachers are trained in several types of schools, although primarily in those specifically founded for that purpose, namely, the teacher training high schools, the pedagogical colleges and the pedagogical academies.

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[5] _Yugoslav Survey_, Vol. VII, no. 24, (Belgrade: Federal Secretariat of Information, January-March 1966), p. 3507.

Teachers of certain subjects in grades five through eight are trained in schools which were founded for other purposes. These include physical education teachers trained in secondary schools for physical culture, music teachers in secondary music schools, home economics teachers in schools of home economics, and teachers of general technical education in the only Advanced School of Industrial Pedagogy. In addition, some teachers are graduates of university faculties (philosophy, natural science-mathematics, philology) or of an advanced school or academy (advanced school of physical culture, art academy and music academy).[6]

In 1962/63, teachers for the elementary school were trained in 127 secondary and higher schools. Table 40 shows the distribution according to republics.

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[6] U.S. Joint Publications Research Service, "Institutions for Training Primary School Teachers in Yugoslavia," Sociological Translations on Eastern Europe, No. 193, JPRS Report No. 22,875, p. 1. (Translated from Prosvätna Dokumentacija (Educational Bulletin): Vol. 7, No. 5, 1963, pp. 3-12).

Table 40--Schools Training Elementary School Teachers, 1962/63

Republics	Teacher Training High Schools		Separate Divisions of Teacher Training High Schools		Pedagogical Colleges		Pedagogical Academies	Total
	4 year	5 year	4 year	5 year	Schools	Separate Divisions		
Bosnia-Hercegovina	10	-	10	-	4	-	-	24
Montenegro	-	1	-	3	1	2	-	7
Croatia	-	14	-	-	-	-	14	28
Macedonia	7	-	4	-	-	-	2	13
Slovenia	-	7	-	2	1	-	1	11
Serbia	-	24	-	8	7	5	-	44
Totals	17	46	14	13	13	7	17	127

NOTE: Figures differ from those in the 1965 Statistical Yearbook of Yugoslavia (p.320) where Teacher Training High Schools total 111. Figures in this chart total 90.

SOURCE: Sprovodjenje Reforme Osnovne Skole, Nastavnici Osnovne Skole (The Carrying Out of Elementary School Reform, Teachers of Elementary Schools), Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), (Beograd: 1963), p. 27.

Teacher Training High Schools

The teacher training high schools prepare teachers for instruction in the self-contained classes of the lower elementary grades (1-4). Training lasts five years; in Bosnia-Hercegovina, the course lasts four years.[7] Students may enroll in the teacher training high schools upon completion of the eight-year elementary school.

As shown in Table 41, enrollments in the teacher high schools have decreased in recent years. In almost all republics, the schools are gradually being abolished and are being replaced by education in the pedagogical academy. Most of the existing teacher high schools are located in the republics of Serbia and Bosnia-Hercegovina. The five-year curriculum of a teacher training high school in Serbia is shown in Table 42. Practice teaching is provided for one week in the fourth year and for 15 days in the fifth year. In the 1963/64 school year, 25.9 per cent of the students were on scholarship.[8]

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[7] In 1961, the five year course of study was reduced to four because of a critical need for teachers. The first three years are devoted to general education, with pedagogical theory and practice provided in the fourth year. U.S. Joint Publications Research Service, The Temporary Plan and Program for Four-Year Teachers' Schools in the People's Republic of Bosnia and Herecegovina," Sociological Translations on Eastern Europe, No. 93, JPRS Report No. 13,209, p. 30. (Translated from Prosvetna Dokumentacija (Educational Documentation): Vol.V, No.6, 1961, p. 30.

[8] Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 330.

Table 41--Development of Teacher-Training High Schools

Year	Schools	Students	Teachers Total	Teachers Full-Time
1938/39	37	4,268	555	483
1957/58	78	21,638	1,669	1,345
1958/59	77	23,648	1,698	1,363
1959/60	79	25,755	1,761	1,455
1960/61	91	27,950	2,014	1,579
1961/62	108	30,335	2,005	1,607
1962/63	111	31,912	2,138	1,646
1963/64	99	28,716	1,698	1,354

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), p. 320.

Table 42--Curriculum of the Teacher Training High School in Sombor (Republic of Serbia)

Subjects	Grades				
	I	II	III	IV	V
Serbo-Croatian	4	4	4	4	2
Pedagogy	-	-	4	2	2
Psychology	-	-	2	2	2
Philosophy	-	-	-	2	2
Methodology and Practical Work	-	-	-	5	6
Foreign Language	4	3	2	2	2
History	2	3	2	3	-
Sociology	-	-	-	-	2
Social Management	-	-	-	-	2
Geography	2	2	2	2	-
Mathematics	4	4	3	2	2
Physics	3	3	2	-	-
Chemistry	-	3	3	-	-
Biology	3	3	2	-	-
Technical Training	2	2	2	2	2
Music	3	2	2	2	2
Art Education	2	2	2	2	1
Physical Education	3	3	3	3	4
Military Training	-	-	-	2	2
Total Hours Per Week	32	34	35	35	33

SOURCE: "Nastavni Plan i Program za Uciteljske Skole" (Curriculum for the Teacher Training High School), Prosvetni Glasnik (Educational Herald), XIII, 7-8 (Belgrade: July-August 1963), p. 204.

With the transfer of teacher training to the pedagogical academies, the teacher training high schools were either closed completely or converted into four-year pedagogical gymnasiums to become preparatory schools for teacher training at the higher level.[9]

Pedagogical Gymnasium

The pedagogical gymnasiums were established for several reasons: There was a need for preparing more and better qualified students for the pedagogical academy; there was a need to acquaint secondary students with the field of education; and, with the closing of secondary teacher training schools, there was a need to assure an adequate supply of qualified candidates for the pedagogical academy.

The curriculum of the pedagogical gymnasium offers courses from both the social science-linguistic and natural science-mathematics course of study in the regular secondary school gymnasium. Where applicable, material selected in certain courses is oriented to the teaching field. For instance, in psychology the emphasis is on developmental psychology, and in art and music, the course is oriented to the teaching of these subjects. Suggestions have been made to add pedagogy to the curriculum, but it was felt this would change the pedagogical gymnasium too much from other gymnasia.[10]

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[9] Report on the Educational Development in the 1964/65 Academic Year, Federal Secretariat for Education and Culture, (Beograd: 1965), p. 13.

[10] Gimnasija Pedagoskog Smjera (Pedagogical Gymnasium), Institute for the Advancement of Education, (Zagreb: 1962), pp. 1-6.

The curriculum of the pedagogical gymnasium does not differ from other gymnasiums in name or number of subjects, but only in their grouping and the number of hours. The subjects are in four groups to help coordinate the work of teachers (See Table 43).

Pedagogical centers have been formed which are comprised of the pedagogical academy, the pedagogical gymnasium and the elementary practice training school. Each institution is independent in its program and organization, but is coordinated in general purpose, cooperation of teachers, use of materials and equipment, and in general educational procedure for guiding students into education. A coordinating council administers the centers.[11]

Pedagogical Colleges

Pedagogical colleges prepare teachers for the departmentalized upper elementary grades (5-8). Studies last two years following completion of the secondary school. Students may select a one or two subject major. The Pedagogical College in Sarajevo, Bosnia-Hercegovina offers the following subject groups: Serbo-Croatian, Russian, English, French, German, History and Geography, Biology and Chemistry, Mathematics and Physics, Physics and Chemistry, Physical Culture, Music, Art, General Technical Education, Mathematics and Chemistry, Home Economics and Library Science.[12]

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[11] *Ibid.*, pp. 21-22.

[12] U.S. Joint Publications Research Service, "Institutions for Training Primary School Teachers in Yugoslavia," No. 193, *op. cit.*, p. 4.

Table 43--Curriculum of the Pedagogical Gymnasium in Zagreb

Subjects	Hours Per Semester Per Grade			
	I	II	III	IV
Social Science-Linguistic Subjects:				
Serbo-Croatian language and literature	5	4	4	4
History	3	3	3	3
Social and Political Organization of Yugoslavia	2	1	-	-
Elements of Political Economy	-	-	2	-
Sociology	-	-	-	2
Physiology	-	-	2	-
Logic	-	-	-	2
Philosophy	-	-	-	2
Fine Arts	2	2	1	½
Music	2	2	1	½
Foreign language	3	3	3	3
Latin language	2	2	-	-
Total	19	17	16	17 = 69
Natural Science-Mathematics Subjects:				
Mathematics	4	4	4	4
Physics	2	2	2	2
Chemistry	-	2	2	2
Biology	2	2	2	-
Geography	2	2	1	2
General Technical Training	1	1	1	1
Total	11	13	12	11 = 47
Physical Education	3	3	3	3
Military Training	-	-	2	2
Total	3	3	5	5 = 16
Seminar Work: (2-4 hours weekly in each of the following:)				
Free Activities				
Practical Work				
Supplementary Pedagogical Seminars				
Total Weekly Hrs. Per Sem.	35	35	35	33 = 138

SOURCE: "Nastavni Plan i Program za Gimnaziju Pedagoskog Smjera" (Curriculum of the Pedagogical Gymnasium), Prosvetni Vjesnik (Educational Courier), 9-10 (December 12, 1962), p. 125.

Pedagogical Colleges function alongside the teacher-training high schools. Some pedagogical colleges have been converted into pedagogical academies.

The Pedagogical Academy

As a result of the reform of elementary education in 1958, demands were made to found a new type of institution for training primary school teachers. In 1960/61, the Pedagogical Academy was established as a two-year institution of higher learning to train teachers for both the self-contained classes of grades one through four, and the departmentalized upper elementary grades. The two year course is equivalent to first level studies at university faculties and other higher schools. Both part-time and regular studies are provided.

Studies in the Academy consist of common or general studies and specialized studies. General studies include philosophy, the socio-economic and political system of Yugoslavia, pedagogy, psychology, physical education and military training. Specialized studies are divided into those which prepare teachers for lower elementary instruction and studies which prepare teachers for the upper elementary grades.

Study at the pedagogical academy is approximately two-thirds theory and one-third practice. Methods courses for instruction in the lower elementary grades include all subjects studied in grades 1 to 4 plus Serbo-Croatian and mathematics since the latter two subjects occupy most of the positions in elementary schools and so that lower elementary teachers will be qualified to teach these subjects in the upper elementary grades should the need arise.[13] Students studying for upper elementary school instruction also take methods courses for lower elementary school instruction.

The pedagogical academy also prescribes extra-curricular subject matter to qualify teachers for directing students in various vocational, artistic, sports and social activities in addition to regular studies.[14]

Problems of the Pedagogical Academy

There is a need to develop a method of testing students in order to check their personal, intellectual and emotional disposition for the teaching profession. Another problem facing the pedagogical academy is that students come from many different types of schools. The better students, as may be expected, come from the teacher training high schools and the gymnasia. There is a need to upgrade the quality of students. Some feel that the Academy should not have to accept everyone who wishes to study in their institution.[15]

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[13] U.S. Joint Publications Research Service, "The Organization of the Pedagogical Academy," Sociological Translations on Eastern Europe, No. 79, JPRS Report No. 11,409, pp. 50-51. (Translated from Pedagoski Rad (Pedagogical Work): Vol. XVI, May-June 1961, pp. 180-197).

[14] Ibid., pp. 54, 57.

[15] Ibid., p. 74.

Suggestions are being made for the establishment of pedagogical school centers comprising the academies, gymnasia, practice teacher training schools and institutes for vocational improvement of teachers and to better coordinate activities of all concerned.

Niksic Pedagogical Academy

The Niksic Pedagogical Academy, founded in the Republic of Montenegro in July of 1963, is unusual in that it provides both secondary education and higher education in one school. Studies are six years in duration. The final two years prepare graduates who come from other secondary schools to teach one or two subjects in the upper elementary grades. Regular students who are on the six-year program are trained to teach in the self-contained classes in grades 1 to 4 and in the departmentalized upper elementary grades (5 to 8). Of the students in the 5th and 6th year, three-fourths come from other secondary schools.

According to the curriculum of the Pedagogical Academy in Niksic (See Table 44), the first 4 years prepare teachers for the lower elementary grades and provide both general and pedagogical training. In the 5th and 6th year, each student selects a one or two-subject major which prepares him primarily to teach the upper elementary grades, although part of the training is also for the lower elementary grades.

Title$_{44}$ --Curriculum of the Six-Year Pedagogical Academy in Niksic, Republic of Montenegro

Subjects	Weekly Hours Per Grade					
	I	II	III	IV	V	VI
Serbo-Croatian Language and Literature	5	4	4	4	$\frac{17}{+2}$*	$\frac{19}{+4}$*
Foreign Language: Russian, English, French	3	3	3	3	$\frac{16}{+4}$	$\frac{22}{+3}$
History	2	2	2	2	16(8+8)	20(10+10)
Geography	2	2	2	2	+ 4	+ 4
Biology	2	2	2	2	16(8+8)	18(9+9)
Chemistry	-	2	2	2	+ 4	+ 4
Physics (Mathematics)	2	2	2	2	16(8+8)	21(10+11)
General Technical Training	2	2	2	2	+ 4	+ 3 + 3
Mathematics (Physics)	4	4	4	3	$\frac{14}{+3}$	$\frac{18}{+3}$
Music Education	3	3	2	2	$\frac{16}{+2}$	$\frac{18}{+3}$
Art Education	2	2	2	2	$\frac{16}{+2}$	$\frac{18}{+3}$
Physical and Health Education	3	3	3	3	$\frac{16}{+3}$	$\frac{18}{+3}$
Basis of Nature and Society	-	-	-	-	2	-
Socio-Political System and Economic Management	-	2	-	-	-	-
Philosophy	-	-	-	-	1	-
Military Training	-	-	-	-	2	2
Psychology with Logic	-	-	3**	-	-	-
Child Psychology	-	-	-	-	2	-
Educational Psychology	-	-	-	-	2	-
Methods and School Work For Lower Elementary Grades	-	-	-	4***	3	3
Pedagogy	-	-	3	2	2 +(1)****	2****
History of Pedagogy	-	-	-	-	1	-
School Administration	-	-	-	-	-	1
Total Per Hours Per Week	30	33	36	35		

					+3	+3
Music Education	3	3	2	2	$\frac{16}{+2}$	$\frac{18}{+3}$
Art Education	2	2	2	2	$\frac{16}{+2}$	$\frac{18}{+3}$
Physical and Health Education	3	3	3	3	$\frac{16}{+3}$	$\frac{18}{+3}$
Basis of Nature and Society	-	-	-	-	2	-
Socio-Political System and Economic Management	-	2	-	-	-	-
Philosophy	-	-	-	-	1	-
Military Training	-	-	-	-	2	2
Psychology with Logic	-	-	3**	-	-	-
Child Psychology	-	-	-	-	2	-
Educational Psychology	-	-	-	-	2	-
Methods and School Work For Lower Elementary Grades	-	-	-	4***	3	3
Pedagogy	-	-	3	2	2 +(1)****	2****
History of Pedagogy	-	-	-	-	1	-
School Administration	-	-	-	-	-	1
Total Per Hours Per Week	30	33	36	35		

NOTE: The subject listed in brackets denotes a secondary or auxiliary subject. The number of hours given in brackets in years V and VI signify the number of hours in the two-subject group.

*Number denotes hours in methods and practice teaching. During the fifth year, hours are divided between theory and practice; during the sixth year, all hours are devoted to practice.

**Taken fifth year by students who transfer from other secondary schools.

***Two hours theory; two practice.

****Hours of seminar.

SOURCE: Nastavni Plan i Program za Pedagosku Akademiju (Curriculum for the Pedagogical Academy), Institute for the Advancement of Education, (Titograd: 1963), p. 1.

A candidate's major is selected from the following subject groups: Serbo-Croatian Language and Literature, Foreign Languages (Russian, English or French), History and Geography, Biology and Chemistry, Physics and General Technical Training, Music Education, Art Education, and Physical Education.

Methods courses are provided for both upper and lower elementary school subjects. Practical training begins in the fourth year and continues in the fifth and sixth year. Methodology in the fourth year is in Serbo-Croatian and in Basis of Nature and Society. In the fifth year, methodoly is in Mathematics; in the sixth in all areas of the lower elementary school program.[16] Practical training includes observation, trial lectures in all areas of the elementary school program and practice teaching in the elementary school during the fifth and sixth year. In the final two years, 68 per cent of the time is devoted to specialized study and 32 per cent to common studies.[17]

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[16] Nastavni Plan i Program za Pedagosku Akademiju (Curriculum for the Pedagogical Academy), Institute for the Advancement of Education, (Titograd: 1963), pp. 34-36.

[17] Ibid., p. 2.

Maribor Pedagogical Academy

The Pedagogical Academy in Maribor Offers 18 different courses of study:[18]

Slovenian--English
Slovenian--Serbo-Croatian
Slovenian--German
Slovenian--Russian
Geography--History
Mathematics--Physics
Biology--Chemistry
Art Instruction
Elementary Teaching Methods
Technical Instruction
Music
Physical Education--Biology
Physical Education--Geography
Electricity Instruction
Machinery Instruction
Metal Training
Business--Economics
Agriculture

Certain studies are common to all students. These include: The socio-economic system of Yugoslavia, philosophy and ethics, pedagogy, history of pedagogy, didactics, general and child psychology, pedagogical psychology, military training (for men), and physical education.

The Slovenian--English course of study is shown in Table 45.

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[18] Visokosolski Zavodi v Maribor (Higher Educational Institutions in Maribor), Association of Higher Educational Institutions, (Maribor: 1965), p. 1.

Table 45 --Curriculum of the Pedagogical Academy in Maribor, Slovenian-English Course of Study

Subjects	Semester							
	I		II		III		IV	
	Lec.	Lab	Lec.	Lab	Lec.	Lab	Lec.	Lab
Socio-Economic System of Yugoslavia	2	-	2	-	-	-	-	-
Philosophy and Ethics	2	-	-	-	-	-	-	-
Pedagogy	3	-	2	-	-	-	-	-
History of Pedagogy	-	-	-	-	2	-	-	-
Didactics	3	-	2	-	-	-	-	-
General and Child Psychology	2	-	3	-	-	-	-	-
Pedagogical Psychology	-	-	-	-	2	1	1	1
Physical Education	-	2	-	2	-	2	-	2
Pre-military Training	2	-	2	-	2	-	2	-
Total	14	2	11	2	6	3	3	3
Slovenian language	2	3	3	3	2	3	2	3
Slovenian literature	2	2	2	2	2	2	3	2
Yugoslavian literature	-	-	2	1	-	-	-	-
World literature	2	-	1	-	-	-	-	-
Special Methods	-	-	-	-	2	2	-	-
Practical pedagogical training	-	-	-	-	-	-	-	2
Total	6	5	8	6	6	7	5	7
English language	3	4	3	4	2	4	2	3
Phonetics	1	-	1	-	1	-	-	-
English literature	-	2	1	2	1	2	1	2
Composition exercises	-	-	-	-	-	1	-	1
Methods in the English language	-	-	-	-	2	2	-	-
Practical Pedagogical training	-	-	-	-	-	-	-	2
Total	4	6	5	6	6	9	3	8
Total Weekly Hours Per Semester	24	13	24	14	18	19	11	18
	37		38		37		29	

SOURCE: Curriculum of the Pedagogical Academy, (Maribor: 1965), p. 37.

Differences in School Programs

A major problem in elementary teacher training has been the variation in school curricula. In a survey of 52 secondary teacher training schools conducted by the Institute of Educational Research in 1963, only 15 schools had the same program of study. The subject of pedagogy was taught according to 20 different plans, didactics according to 12 different plans, and educational psychology according to 5 plans. Methods courses in 36 schools were taught for 4 semesters, in 11 schools for 2 semesters and in one school from three to four semesters. Of the 52 schools surveyed, 50% required two weeks of practice teaching, 24.5% required one week, 14 per cent required three weeks and 6 per cent less than one week.[19]

Differences also exist in the structure of curricula in the pedagogical colleges. The only schools which have a uniform program are the pedagogical academies. In a survey of 29 pedagogical colleges and academies, two schools (in Belgrade and Ljubljana) did not require practice teaching, in 17 schools it was required two weeks, in five schools for one week, in one school for three weeks and in another school for four weeks.[20]

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[19] Sprovodjenje Reforme Osnovne Skole, Nastavnici Osnovne Skole (The Carrying Out of Elementary School Reform), Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), (Beograd: 1963), pp. 31-32.

[20] Ibid., p. 32.

Differences Among Republics

The reform of schools for training elementary teachers has been in various stages of development in the different republics. Reform was first begun and most developed in the Republic of Croatia. From 1960/61 to 1962/63, the pedagogical colleges were abolished and 14 pedagogical academies were established. Since 1961/62, the secondary teacher training schools ceased enrolling students and were transformed into pedagogical gymnasiums.

By 1962/63, the concept of the pedagogical academy as a uniform school for training lower and upper elementary school teachers was accepted by all republics, with the exception of Serbia and Bosnia-Hercegovina. In Macedonia, the two pedagogical colleges were transformed into pedagogical academies in 1961/62. In the same year, in Maribor, Slovenia, pedagogical colleges were converted into pedagogical academies. In Montenegro, the pedagogical college in Cetinje and the teacher training high school were abolished, and the six-year pedagogical academy was established in Niksic in 1963/64.

In Bosnia-Hercegovina, because of a great lack of teachers, the decision was made in 1961 to shorten studies from 5 to 4 years and to establish pedagogical courses for graduates of the gymnasia. The decision was also made to widen the capacity of pedagogical colleges, but, by 1963, much of this reform had not yet begun.

In Serbia, there was an intensive program for developing the network and capacity of teacher training high schools and pedagogical colleges. As in Bosnia-Hercegovina, Serbia had not accepted the idea of pedagogical academies. In 1963, the Council of Education decided to increase the education of teachers from 5 to 6 years, thereby combining the 4-year secondary teacher education with the pedagogical colleges.[21]

Qualifications of Teaching Staff

In a 1963 survey of 52 teacher training high schools, 65 per cent of the teachers of pedagogical subjects had had university training. In a similar survey of 164 teachers of pedagogy, psychology and methods courses in 26 pedagogical colleges and academies, 89.1 per cent had university training, and 10.9 per cent had college education.[22]

Facilities

As in other areas of the school system, there has been a shortage of buildings, equipment and other facilities in the teacher training institutions. Out of the 52 teacher training high schools surveyed in 1963, 46 per cent did not have their own school buildings and a little more than half of the schools worked in double sessions. In another survey of 76 teacher training high schools, pedagogical colleges and academies, only 11 had their own practice teacher training schools, 49 had training schools outside their institutions and 14 had no practice training schools at all. Thirty-one of the 76 schools had libraries of less than 5,000 books.[23]

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[21] _Ibid._, pp. 32-33.

[22] _Ibid._, p. 35.

[23] Ibid., pp. 36-37.

Inservice Training

In order to aid teachers in adapting to new curricular programs following the reform of schools in 1958, there was an intensive development of inservice training of teachers in all republics. Various types of studies were organized which included courses lasting 15 to 60 days, seminars lasting 3 to 15 days, consultations and other types of training. A large number of teachers utilized these services two or more times.

Inservice training was most developed in Serbia and Croatia. From 1959 to 1961, 2,193 seminars were organized in Serbia which were attended by 93,541 elementary school teachers. In Croatia from 1956 to 1961, 76,082 administrators, advisers and teachers enrolled in inservice training courses.[24]

Formerly, inservice education was concerned with vocational improvement of elementary school teachers. Later, with the great need for the vocational improvement of teachers on the secondary level, particularly in methodology and pedagogical subjects, the number of seminars and courses designed for elementary teachers declined.[25]

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[24] _Ibid._, p. 38-40.

[25] _Ibid._, p. 41.

Although the primary purpose of inservice education was to keep teachers up-to-date with the latest developments in pedagogical theory and practice, and in the field in which they teach, the early stages of inservice training were principally concerned with supplementary education of teachers who found themselves teaching in the upper elementary grades for which they were not qualified. The further development of inservice education will necessitate raising the vocational and educational level of teachers, and developing in all republics a system of institutions permanently concerned with inservice training.[26]

According to Article 74 of the General Law on Schools, teachers are required to periodically participate in various forms of vocational improvement or inservice training. Organizations and institutions concerned with vocational improvement of teachers include the following: Schools and teacher training institutions, the educational-pedagogical service of districts and communes, district councils for education, republican institutes for the advancement of education, vocational and economic organizations, and scientific, pedagogical and research institutions.[27]

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[26] Ibid., pp. 42-44.

[27] Strucno Usavrsavanje Nastavnika (Vocational Improvement of Teachers), Savezni Zavod za Proucavanje Skolskih i Prosvetni Pitanja (Federal Institute for Educational Research), (Beograd: 1961), p. 20.

The Center for Advanced Teacher Education in Sremski Karlovci, in the autonomous region of Vojvodina, conducts a program of research and continuing inservice education of teachers. Various short-course seminars are offered. Tuition is free. Consideration has been given to developing the facility into a national center for advanced teacher education.

Teachers of Special-Training Schools

Until 1947, special-training teachers were trained by one of three methods: (1) One year courses, (2) Observation and practice in special schools plus passage of exams, and (3) By study in foreign countries.

In 1947, special-training departments were opened in the pedagogical colleges, but these were not fully developed nor well organized. Studies for some types of defective children were not offered; other sutides were too general in nature and some needed medical subjects were not in the curriculum. Efforts are being made to develop a school of higher education for training special-school teachers and for developing research and inservice training.[28]

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[28] *Obrazovanje Nastavnika i Vaspitaca za Specijalne Skole i Ustanove* (Education of Teachers and Pre-School Teachers for Special Schools and Institutions), Savezni Zavod za Proucavanje Skolskih i Prosvetnih Pitanja (Institute for Educational Research), (Beograd: 1962), pp. 26-27. See Also: *Obrazovanje Nastavnog Kadra u Novom Sistemu Obrazovanja i Vaspitanja* (Training of Teachers in the New System of Education), Komisija za Reformu Skolstva (Commission for School Reform), (Beograd: 1957), pp. 69-70.

Teachers of Minority Schools

According to the General Law on Schools,[29] the training of teachers for minority schools shall be carried out in the language of the minority in special schools established for that purpose, or in classes at regular schools for the training of teachers. The curriculum shall include study of the national culture of the minority and also the language of the republic.

Since the pre-war period, the number of teachers in elementary and secondary minority schools has increased tenfold. In 1938/39, there were 843 teachers in schools for the national minorities; in the 1963/64 school year, the number had grown to 8,764 teachers.[30]

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[29] See Articles 48 to 50 in Appendix A.

[30] Gabor Janosi, "Education and Culture of Nationalities in Yugoslavia," Studies, 4 (Beograd: 1965), p. 31.

CHAPTER IV

SECONDARY TEACHERS

The most striking development in secondary school enrollment is the shift away from general schools into technical and vocational schools. (See Tables 46 and 47). In recent years, however, the number of teachers in these schools has increased only slightly and is below that necessary to meet present needs. (See Table 48).

There is a general shortage of teachers in all types of secondary schools, especially in schools for skilled workers (where the number of pupils per teacher has doubled) and in technical schools (where the number of pupils per teacher has increased by more than one third). The problem of the shortage of teachers is compounded by the fact that approximately half of the teachers have not received proper educational training. In addition, teacher training itself varies from school to school.[2]

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[1] Pedagosko Obrazovanje Studenata Buducih Professora Srednjih Skola (Education of Future Secondary School Teachers), Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), (Beograd: 1963), p. 1.

[2] Yugoslav Survey, Vol. VI, no. 23, (Belgrade: Federal Secretariat of Information, October-December 1965), p. 3373.

Table 46--Enrollments in Secondary Schools

Year	Gymnasiums	Vocational Schools*	Total
1959/60	79,000	255,000	334,000
1960/61	80,000	282,000	362,000
1961/62	95,000	307,000	402,000
1962/63	116,000	332,000	448,000
1963/64	142,000	362,000	504,000
1964/65	169,000	401,000	570,000

*Includes schools for skilled workers, technical and other vocational schools, teacher schools and art schools.

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), Beograd: 1965), pp. 319-320.

Table 47--Number of Pupils Attending Secondary Schools in 1959/60 and 1963/64 by Type of Establishment

Schools	1959/60	1964/65	Index 1959/60 = 100
Gymnasium	78,750	168,727	214
Technical and Other Vocational Schools for Industrial and Public Service Personnel	89,967	197,136	211
Teacher Training Schools and Other Establishments For Educational Staff	25,755	29,042	113
Schools for Skilled Workers	131,384	166,267	127
Schools for Other Skilled Personnel	3,544	3,417	96
Art Schools	4,191	5,534	132

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), pp. 319-320.

Report on the Educational Development in the 1964/65 Academic Year, Federal Secretariat for Education and Culture, (Beograd: 1965), pp. 9-10.

Table 48--Development of Teachers in Secondary Schools

Schools	Year 1938/39	1957/58	1962/63	1963/64	1964/65
Gymnasiums	5,607	5,827	6,249	7,404	7,806
Teacher Training Schools	555	1,669	2,138	1,698	1,531
Technical and Vocational Schools	897	5,440	9,704	9,791	9,602
Schools for Skilled Workers	6,174	9,388	5,462	5,449	5,175
Schools for Other Skilled Personnel	23	454	512	400	282
Art Schools	136	1,121	1,190	1,074	1,106

SOURCE: Statisticki Godisnjak SFRJ 1965 (Statistical Yearbook of SFRY 1965), Savezni Zavod za Statistiku (Federal Statistical Office), (Beograd: 1965), pp. 319-320.

Report on the Educational Development in the 1964/65 Academic Year, Federal Secretariat for Education and Culture, (Beograd: 1965), pp. 9-10.

Types of Teacher Training Institutions

The types of schools which train secondary school teachers include: The "teaching faculties" (philosophy, philosophy-history, philology, natural science-mathematics, natural science-technology); the Advanced School of Industrial Pedagogy; advanced schools of physical culture, music academies and academies of art. In 1938/39, there were four "teaching" faculties of philosophy and four art academies which were located in four towns. In 1961/62, the teacher training institutions had increased to twenty-five schools located in nine towns. The distribution of these schools by republics is shown in Table 49.

Approximately half of the graduates from the "teaching faculties" enter the field of education. These faculties, which in the past were primarily devoted to teaching, have now branched out into other areas and train students for other vocations.[3]

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[3] Stanje i Problemi Nastavnickog Kadra (Status and Problems of the Teaching Profession), Secretariat for Education and Culture of the Federal Executive Council, (Beograd: 1962), p. 34.

Table 49 --"Teaching Faculties," Advanced Schools and Art Academies by Republics, 1961/62

Schools	Bosnia-Herce-Govina	Montenegro	Croatia	Macedonia	Slovenia	Serbia	Total
Philosophy	1	-	2	1	1	2	7
Philosophy-History	-	-	-	-	-	1	1
Philology	-	-	-	-	-	1	1
Natural Science-Mathematics	1	-	1	1	-	1	4
Natural Science-Technology	-	-	-	-	1	-	1
Advanced Industrial Pedagogical School	-	-	1	-	-	-	1
Advanced School of Physical Culture	-	-	1	-	1	1	3
Music Academy	1	-	1	-	1	1	4
Academy of Arts	-	-	1	-	1	1	3
Total	3	-	7	2	5	8	25

SOURCE: Pedagosko Obrazovanje Studenata Bucucih Professora Srednjih Skola (Education of Future Secondary School Teachers), Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), (Beograd: 1963), p. 8.

Pedagogical, Methods and Psychological Training

Great differences exist in the vocational, and especially in the pedagogical training of teachers, not only between republics, but also within republics. Out of 25 teacher training faculties, advanced schools and art academies, in 1962/63, pedagogy was studied in 22 schools, psychology in 11, and methods in 20 schools (See Table 50). All three subjects were studied in only a very small number of courses. Most often only pedagogy and methods were studied, or only methods. At the philosophical faculty in Belgrade, none were studied.

Out of 75 courses of study in five teaching faculties in Serbia, pedagogy was in the curriculum of 30, psychology in 8, and methods in 39 fieldsof study. In three Belgrade teaching faculties, methodology was offered in only 16 out of 50 courses of study, with practice teaching for only 1 to 2 hours per semester.[4]

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[4] Pedagosko Obrazovanje Studenata Buducih Professora Srednjih Skola, op. cit., pp. 72-73.

Table 50 --Schools Offering Pedagogical, Methods and Psychological Training, 1962/63

Faculties, Advanced Schools and Art Academies	Schools	Number and Location of Schools Offering: Pedagogy	Psychology	Methods
Philosophy	7	Sarajevo Zagreb Ljubljana Zadar Skoplje Novi Sad Pristina	Zagreb Ljubljana Zadar Novi Sad	Sarajevo Skoplje Ljubljana Novi Sad Pristina Zagreb
Philosophy-History	1	Beograd	-	Beograd
Philology	1	-	-	-
Natural Science-Mathematics	4	Sarajevo Skoplje Zagreb	Zagreb	Zagreb Skoplje Beograd*
Natural Science-Technology and Bio-Technology**	1	Ljubljana	-	Ljubljana
Advanced Industrial Pedagogical School	1	Rijeka	Rijeka	Rijeka
Advanced School of Physical Culture	3	Zagreb Ljubljana Beograd	Zagreb	Zagreb Beograd
Music Academy	4	Sarajevo Zagreb Beograd	Zagreb	Zagreb Beograd
Academy of Arts	3	Zagreb Beograd Ljubljana	Zagreb Ljubljana	Zagreb Beograd Ljubljana
Total	25			

*Only in Departments of Mathematics, Physics and Biology

**Considered as one faculty, earlier was Natural Science-Mathematics.

SOURCE: Pedagosko Obrazovanje Studenata Buducih Professora Srednjih Skola (Education of Future Secondary School Teachers), Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research), (Beograd: 1963), p. 11.

Differences exist among schools in the number of hours and number of semesters devoted to the study of pedagogy, psychology and methods courses. In schools which offer first level studies, the subject of pedagogy is most often taught during the I and II semester, while schools which maintain the undivided four-year program usually offer pedagogy in the V and VI semester, or in the VI and VII semester. The course in pedagogy is usually taught two hours weekly for two semesters. In general, most consider this inadequate for the material to be covered. Psychology is also usually offered for two hours weekly for 2 semesters. It is provided three hours weekly at the advanced schools of physical culture and at the academies of music. In schools where first level studies are offered, psychology is usually taught in the I and II semester. The course usually includes developmental and educational psychology. In most schools, methods courses, including lab and lecture, are taught for two to four hours weekly and are offered most often in the III and IV semester or in the VII and VIII semester.[5]

Differences are also found in the structure of the curriculum, examinations and attendance in classes. Poor attendance has been attributed primarily to large class size, lack of textbooks and to the shortage of teachers.[6]

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[5] _Ibid._, pp. 13-15.

[6] _Ibid._, pp. 72-73.

Natural Science-Mathematics Faculty in Zagreb

Some schools have developed a more intensified program of teacher training. At the Natural Science-Mathematics Faculty in Zagreb, there are six departments of study, each having two courses: Teacher training and the regular course for mathematics majors (See Table 32 for regular course). Methods courses for elementary school teachers are offered in first level studies and for secondary school teachers in second level studies. Teachers of the methods courses instruct six hours per week in a corresponding school. Training teachers are paid a nominal fee for working with student teachers. Practice teaching is given two hours weekly for which students are prepared in methods "practicums," which offer a lab-demonstration type of training.

The following curriculum for the teacher training course of study in the department of mathematics shows that first level studies are channeled into two fields (physics and mathematics), while in second level studies a student may select either the mathematics-descriptive geometry course of study or the mathematics-physics course. First level studies qualify the teacher to instruct in the elementary school; second level studies qualify the teacher for instruction in the secondary school. (See Table 51 for the teacher training course).

Table 51--Curriculum of the Department of Mathematics in the Natural Science-Mathematics Faculty. (Teaching Course of Study for Mathematics and Physics)

	Semesters			
Subjects	Lec.	Lab.	Lec.	Lab.
FIRST YEAR				
Mathematical Analysis	3	2	3	2
Analytic Geometry and Linear Algebra	3	2	3	2
Physics I and II	3	3	4	2
Pedagogy and Didactics	2	-	2	-
Educational Psychology	2	-	2	-
Military Training	2	-	2	-
Total Hours Per Week	15	7	16	6
	22		22	
SECOND YEAR				
Mathematical Analysis II	3	2	3	2
Elementary Mathematics	2	2	2	2
Physics III and IV	3	2	4	2
Physics Practicum I and II	-	4	-	4
Methods in Teaching Mathematics I	2	-	-	3
Methods in Teaching Mathematics II	2	-	-	3
Practicum in Experimental Teaching of Physics I	-	-	-	2
Basis of Social Science I	2	1	2	1
Military Training	2	-	2	-
Total Hours Per Week	16	11	13	19
	27		32	

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(Table 51 continued)

(a) Mathematics and Descriptive Geometry

THIRD YEAR

Subjects	Semesters			
	Lec.	Lab.	Lec.	Lab.
Theory of Numbers	2	1	2	1
Algebra	3	2	3	2
Mathematical Analysis III or Differential Geometry	3	2	3	2
Projective Geometry	2	2	2	2
Descriptive Geometry	3	2	3	2
Basis of Social Science II	2	1	2	1
Total Hours Per Week	15	10	15	10
	25		25	

FOURTH YEAR

Foundations of Geometry	3	2	3	2
Numerical and Statistical Methods	2	2	2	2
Descriptive Geometry II	3	2	3	2
Methods & Seminar in Teaching Mathematics II	2	-	-	3
History of Mathematics	2	-	2	-
Seminar in Mathematics or Geometry	-	2	-	2
Research Paper in Methods of Teaching Mathematics	-		-	
Total Hours Per Week	12	8	10	11
	20		21	

(Table 51 continued)

(b) Mathematics and Physics

THIRD YEAR

Subjects	Semesters			
	Lec.	Lab.	Lec.	Lab.
Theory of Numbers	2	1	2	1
Algebra	3	2	3	2
Mathematical Analysis III	3	2	3	2
Theoretical Mechanics I and II	3	2	3	2
Practicum in Experimental Physics II for Mathematicians	-	4	-	4
Foundations in Astro Physics	2	-	-	-
Basis of Social Science II	2	1	2	1
Total Hours Per Week	15	12	13	12
	27		25	

FOURTH YEAR

Subjects	Lec.	Lab.	Lec.	Lab.
Foundations in Geometry	3	2	3	2
Numerical and Statistical Methods	2	2	2	2
Theoretical Physics	3	2	3	2
Methods and Seminar in Teaching Mathematics II	2	-	-	3
Methods in Teaching Physics II	2	-	-	-
Seminar in Mathematics or Geometry	-	2	-	2
History of Mathematics	2	-	2	-
Research Paper in Methods of Teaching Mathematics	-		-	
Total Hours Per Week	14	8	10	11
	22		21	

SOURCE: Statut Prirodoslovno-Matematicki Fakultet (Statute of the Natural Science-Math Faculty), (Zagreb: 1962), pp. 13-14.

Philosophical Faculty in Zadar

During the VII semester, students are required to observe in the gymnasium and in at least one vocational school. In the VIII semester, students spend six days in observing: three hours each day in the major subject and 1 to 2 hours in the minor subject. During the VIII semester each student is required to present one trial lecture and one public lecture upon which he must write a critique.[7]

Academy of Art in Zagreb

In the department of pedagogy at the Art Academy in Zagreb, psychology is taught two hours a week for the first four semesters, pedagogy is offered four hours weekly in semesters III and IV, and methods are given two hours weekly during the I and II semester and eight hours weekly in the VII and VIII semester.[8]

Pedagogical Training in Other Fields

Pedagogical training has been recognized as important even for those who teach in specialized fields. The Economic Faculty in Skoplje has expressed the view that all who teach in secondary schools should have pedagogical training. The Yugoslav Association of Engineers and Technicians favors pedagogical training since many of their graduates teach in the vocational schools, centers for vocational education, and adult education.

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[7] *Ibid.*, p. 19.

[8] *Ibid.*, p. 18.

The Academy of Art and Music is of the opinion that all students should receive a minimal pedagogical education. And the Medical Faculty in Ljubljana has stated that all doctors who are involved in teaching and educational work (in classes, seminars, and in other kinds of instruction) should have pedagogical and psychological training.[9]

The Trade Union

The Trade Union comprises all social workers, including teachers. It appears that while the Trade Union is not a close parallel to professional associations in the United States, many functions are common to both. Of the one-half million members in the Trade Union, there are about 160,000 members in the field of education.

Free Activities

Schools are required to organize free activities for students, and teachers are required to participate in organizing these activities and in providing motivation and guidance. The purpose of free activities is to "join education with socially beneficial and productive work".[10]

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[9] Ibid., pp. 56-57.

[10] S. Pataki, Opca Pedagogija (General Pedagogy), (Zagreb: Pedagosko-Knjizevni Zbor, 1964), p. 62.

Free activities are in the form of student organizations and associations such as the student production associations, work brigades, young technicians clubs, cultural-art societies, "pioneer" associations, sport societies, debating clubs, etc. Each group has its own program which is approved by the school board and the teacher's council. The associations are managed by the students.[11] In 1959/60, approximately 90 per cent of the students joined the associations.[12]

Advanced School of Industrial Pedagogy

The training of vocational teachers in Yugoslavia can best be seen through the development of the Advanced School of Industrial Pedagogy in Rijeka. Prior to 1953, there was not a single institution in the country specially concerned with the training of teachers for vocational education. With the rapid industrialization of the country following the Second World War, there was a need to develop vocational education both quantitatively and qualitatively.

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[11] Ibid.

[12] Rasprostranjenost Slobodnih Aktivnosti Ucenika u Osnovnoj Skoli 1959/60 (Expansion of Free Activities of Students in Elementary School 1959/60), Savezni Zavod za Proucavanje Skolskih i Prosvetnih Pitanja (Federal Institute for Educational Research), (Beograd: 1961), pp. 2-3.

Originally, vocational schools (not including the technical and advanced schools) were only part-time schools for young people learning in industry. Teachers were recruited from the ranks of specialists trained for production. New social and economic conditions called for a special system of vocational and pedagogical training of teachers for the entire field of vocational education.[13]

In 1953, the Executive Council of the Republican Assembly of Croatia founded the Vocational Pedagogical College (Visa Strucna Pedagoska Skola) in Rijeka. The primary purpose of the school was to train secondary teachers for metal working and electro-technical subjects. The school was oriented predominently toward training teachers for the industrial schools. Training lasted two years and graduates received a teaching diploma. A Pedagogical Center was organized for inservice training of teachers.

Later, as the need arose, the departments of mathematics-applied physics, and technical training were added. The school pioneered the preparation of teachers for technical training which had been introduced as a new subject in the elementary school by the 1958 educational reform.[14]

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[13] The Training of Teachers for Vocational Education, Visoka Industrijsko-Pedagoska Skola (The Advanced School of Industiral Pedagogy), (Rijeka: 1965), p. 1.

[14] Ibid.

Although the primary purpose of the Vocational Pedagogical College was to provide teachers for vocational schools, thirty per cent of the graduates from 1953 to 1962 were employed in working organizations and institutions for adult education. In view of this development the curriculum was reformed to include adult education as a compulsory subject.

The development of vocational schools required a more highly qualified teacher and industrial pedagog (specialist) for work in organizing curricula of vocational schools, and dealing with questions of methodology and didactics. In 1962/63, the school was transformed into the Advanced School of Industrial Pedagogy. Second level studies were opened. The new school had all the functions of the old one, and, in addition, took over part of the work of the Pedagogical Center.

Departments of the school include: Metal Working, Electro-technology, Mathematics and Applied Physics, Technical Training and Industrial Pedagogy. Second level studies are offered only in the departments of Metal Working and Industrial Pedagogy. Other departments are later expected to open. The school has regular, part-time and combined studies,[15] and also provides for research work in its own institute. Connected with the school is the Pedagogical Center for inservice training of teachers.[16]

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[15] Studies in which a student works full time, but is required to attend specially organized courses each semester of at least thirty days duration.

[16] *Pedagosko Obrazovanje Studenata Buducih Professora Srednjih Skola*, *op. cit.*, pp. 20-21.

The school operates on the principle of simultaneous mastering of a particular subject along with pedagogic knowledge. Practice teaching is carried out in appropriate vocational schools, factory centers, schools for adults and on the job in working organizations.[17] The school has "didactic practicums", or didactic training workshops which are also used for inservice training of teachers.[18]

Since 1960, extension courses were opened in Belgrade, Zagreb, Maribor, Kragujevac, Subotica and other places in the country.

Selected Programs of Study

The Department of Technical Training is organized only on the first level and trains teachers of technical training for the elementary schools. (See Table 52). Planned second level studies will train teachers for the gymnasium. Students will also be qualified to teach descriptive geometry.[19]

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[17] The Training of Teachers for Vocational Education, op. cit., pp. 14, 19.

[18] Visoka Industrijsko-Pedagoska Skola--Rijeka--1953/1963, (Advanced Insustrial-Pedagogical School), (Rijeka: 1963), pp. 16, 22.

[19] Ibid., p. 18.

Table 52 --Curriculum for the Technical Training Course of Study in the Advanced School of Industrial Pedagogy in Rijeka. (First-Level Studies)

Subjects	Semesters I Lec.	I Lab	II Lec.	II Lab	III Lec.	III Lab	IV Lec.	IV Lab	Total Hours
General Culture	0	3	0	3	2	3	2	3	16
Culture of Language	0	3	0	1	-	-	-	-	4
Aesthetic Culture	-	-	-	-	2	0	2	0	4
Foreign Language (Russian, Eng. German)	-	-	0	2	0	3	0	3	8
Social, Psychological-Pedagogical Subjects	6	4	6	3	2	6	3	7	37
Methodology	1	0	-	-	-	-	-	-	1
Basis of Social Sci.	1	0	2	0	-	-	-	-	3
Psychology	2	2	2	2	-	-	-	-	8
Intro. to Industrial Pedagogy	1	1	-	-	-	-	-	-	2
Seminar in pedagogical anthropology of work	1	1	-	-	-	-	-	-	2
Pedagogical management	-	-	-	-	-	-	0	2	2
Seminar in industrial pedagogy	-	-	-	-	-	-	1	1	2
Didactics	-	-	2	1	0	2	-	-	5
Methods in tech. training with practice teaching	-	-	-	-	2	2	2	2	8
Pedagogical analysis of work	-	-	-	-	0	2	0	2	4
Basis of Natural Science	4	2	4	2	-	-	-	-	12
Mathematics	2	1	2	1	-	-	-	-	6
Physics	2	1	2	1	-	-	-	-	6
Technical Subjects	2	4	2	5	6	4	4	4	31
Technical Drawing	0	3	0	2	-	-	-	-	5
General Machinery	-	-	-	-	2	2	2	2	8
Electrotechnology	2	1	0	2	-	-	-	-	5
Electronics	-	-	-	-	2	1	0	2	5
Construction	-	-	2	1	-	-	-	-	3
Agro-technology	-	-	-	-	2	1	-	-	3
Practicum in Technology of	0	5	0	5	2	2	0	3	17
Communication	-	-	-	-	2	2	-	-	4
Films	-	-	-	-	-	-	0	3	3
Metal Work	0	3	0	3	-	-	-	-	6
Wood Work	0	2	0	2	-	-	-	-	4
Total hrs. per wk.	12	18	12	18	12	15	9	17	113
	30		30		27		26		

SOURCE: Statut (Statute), Visoka Industrijsko-Pedagoska Skola (Advanced School of Industrial Pedagogy), (Rijeka: November 1963), p. 79.

The Department of Mathematics and Applied Physics is also, for the present, organized for first level studies. The Department trains teachers for work in schools and other institutions for skilled workers. (See Table 53). Planned second level studies will train teachers for work in technical and similar schools. Two fields of study will be offered: Mathematics--descriptive geometry and applied physics.[20]

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[20] *Ibid.*, p. 17.

Table 53--Curriculum of the Mathematics-Applied Physics Course of Study at the Advanced School of Industrial Pedagogy in Rijeka. (First-Level Studies)

					Semester				
Subjects	I		II		III		IV		Total Hours
	Lab.	Lec	Lab.	Lec	Lab.	Lec	Lab.	Lec	
General Culture	0	3	0	3	2	3	2	3	16
Culture of Language	0	3	0	1	-	-	-	-	4
Aesthetic Culture	-	-	-	-	2	0	2	0	4
Foreign Lang. (Russian, English, German)	-	-	0	2	0	3	0	3	8
Social, Psychological and Pedagogical Courses	6	4	6	3	4	4	0	4	31
Methodology	1	0	-	-	-	-	-	-	1
Basis of Social Science	1	0	2	0	-	-	-	-	3
Psychology	2	2	2	2	-	-	-	-	8
Introduction to Industrial Pedagogy	1	1	-	-	-	-	-	-	2
Seminar in Pedagogical Anthropology of Work	1	1	-	-	-	-	-	-	2
Pedagogical Management	-	-	-	-	-	-	0	2	2
Adult Educ.	-	-	-	-	2	0	-	-	2
Didactics	-	-	2	1	0	2	-	-	5
Methods in Applied Physics With Practice Teaching	-	-	-	-	2	2	0	2	6
Specialization	10	7	10	9	9	9	9	7	70
Mathematics	4	3	4	3	5	4	5	4	32
Elementary Mathematics	4	3	4	3	-	-	-	-	14
Higher Mathematics	-	-	-	-	3	2	3	2	10
Descriptive Geometry	-	-	-	-	2	2	2	2	8
Applied Physics	6	4	5	5	4	5	4	3	38
Mechanics and Stress of Materials	2	2	2	2	2	2	-	-	12
Physics	2	1	2	1	2	1	2	1	12
Nuclear Physics	-	-	-	-	-	-	2	0	2
Physics Practicum	-	-	0	2	0	2	0	2	6
Chemistry	2	1	2	1	-	-	-	-	6
Total Hours Per Week	16	14	16	15	15	16	11	14	
	30		31		31		25		117

SOURCE: Statut (Statute), Visoka Industrijsko-Pedagoska Skola (Advanced School of Industrial Pedagogy), (Rijeka: November 1963), p.78.

The Department of Industrial Pedagogy is organized only at the second level. Candidates are admitted who have completed first level studies in a college, advanced school or faculty, and who are employed in schools or other vocational education organizations. No previous pedagogic training is required.

Students do not leave their jobs while they study; instead, they come to school for shortened courses each semester. These courses are organized as seminars with intensive training over a period of 240 hours, or 30 working days. The remaining time is spend on the job, studying independently, and working on a chosen project.[21] According to the needs of their jobs, students select a problem which they study all four semesters. The students are required to complete their research before presenting themselves for final examinations.[22]

Candidates may specialize in one of four areas: Organization of educational institutions, curriculum construction, organization of teaching, and educational guidance. (See Table 54). The Department is also concerned with inservice training and scientific research work.

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[21] The Training of Teachers for Vocational Education, op. cit., p. 15.

[22] Ibid.

Table 54--Curriculum for the Advanced School of Industrial Pedagogy in Rijeka

(a) Program for All Candidates

Lecture course	Total hours	Number of hours weekly in semester I	II	III	IV
INDUSTRIAL PEDAGOGY					
Industrial pedagogy	84	1	2	2	2
Social pedagogy	12	1	-	-	-
Economic pedagogy	21	-	2	-	2
Pedagogic anthropology of work	24	-	2	-	-
Didactic rationalization	24	-	-	2	-
Adult education	24	-	-	-	2
METHODOLOGY					
Sociology	24	1	1	-	-
General methodology	48	2	2	-	-
Statistics	36	3	-	-	-
Techniques and documentation	48	2	2	-	-
THEORY OF WORK					
Scientific organization of work	24	-	2	-	-
Work study and analysis	36	3	-	-	-
Modern working techniques	24	-	-	2	-
Industrial aesthetics	12	-	-	-	1
PSYCHOLOGY					
Psychophysiology of work	36	3	-	-	-
Industrial socio-psychology	24	-	2	-	-
Pedagogic psychology	24	-	-	2	-
Differential psychology	24	-	-	-	2
GENERAL SUBJECTS					
Foreign language	72	2	2	1	1
Cultural Aesthetics	36	1	1	1	-
Culture and technology	12	-	-	-	1
TOTAL	672	19	18	10	9

SOURCE: Visoka Industrijsko-Pedagoska Skola--Rijeka--1953/1963, Advanced Industrial-Pedagogical School, (Rijeka: 1963), p. 23.

(Table 54 continued)

(b) Differential Programs

Lecture course	Total hours	Number of hours weekly in semester I	II	III	IV
ORGANIZATION OF EDUCATIONAL INSTITUTIONS					
Organization of Educational institutions	72	-	-	3	3
Legal regulations of education	24	-	-	2	-
The economics of education	24	-	-	-	2
Practical work: founding and equipping educational institutions	24	-	-	1	1
Seminar: Research in organizing of educational institutions	48	-	-	2	2
TOTAL	192	-	-	8	8
CURRICULUM CONSTRUCTION					
Methodology and practice of program making	72	-	-	3	3
System of training	12	-	-	1	-
Minimalization and verification of programs	12	-	-	-	1
Practical work: in program making	48	-	-	2	2
Seminar: Research in program making	48	-	-	2	2
TOTAL	192	-	-	8	8
ORGANIZATION OF TEACHING					
Organization of teaching	60	-	-	2	3
Didactic testing	24	-	-	2	-
Documentation and standardization	12	-	-	-	1
Practical work: didactics and methods	48	-	-	2	2
Seminar: Research in the area of teaching organization	48	-	-	2	2
TOTAL	192	-	-	8	8
EDUCATIONAL GUIDANCE					
Organization and methods of educational guidance	72	-	-	3	3
Legal regulation of education	12	-	-	1	-
Planning staff requirements and the network of ed. institutions.	12	-	-	-	1
Practical work: methods of general and voc. ed.	48	-	-	2	2
Seminar: Research in area of educ'l. guid. services	48	-	-	2	2
TOTAL	192	-	-	8	8

SOURCE: Visoka Industrijsko-Pedagoska Skola--Rijeka--1953/63, Advanced Industrial-Pedagogical School, (Rijeka: 1963), p. 24.

CHAPTER V

CONCLUDING REMARKS ON TEACHER TRAINING

Teacher training presents itself, both as to quantity and quality, as one of the major problems in the development of education in Yugoslavia. The reform of schools and the resulting expansion and reorganization of education has required corresponding developments in teacher training. Although many improvements have been made in recent years, the situation is far from adequate. The present shortage of qualified teachers, particularly in secondary education, will become increasingly acute as future plans to reorganize training at the secondary level will necessitate more and better qualified staff than is presently available. As in other European countries, there is a great need for teachers of mathematics and physics.

Measures which have been taken in the past to increase the number of qualified teachers include the establishment of teacher-training colleges, the lengthening of courses in teacher training high schools, the creation of teaching departments in the natural science-mathematics faculties, the establishment of the Advanced School of Industrial Pedagogy to train vocational teachers and the introduction of post-graduate studies at universities to form teaching and research staff. Efforts were also made to raise salaries and increase the prestige of the teaching profession.

Although great strides have been made by certain institutions in the training of teachers, there are still many faculties and other higher schools which are turning out inadequately trained teachers. In some secondary schools there are teachers who possess not even the minimum pedagogical and psychological training necessary. Because of this factor, first year teachers encounter numerous difficulties. There is a need to further develop the pedagogical, psychological and methods training of teachers.

Some of the problems which need to be resolved in the coming period include the following:

--There is a need to raise the material conditions of teachers in order to attract talented people to the profession. At the same time, teacher training schools, facilities and programs must be further developed.

--The time spent in practice teaching is short and should be lengthened. This is also true of other education courses.

--There is a need to provide more scholarships and financial aid for students.

--There is a need to examine the possibility of establishing separate departments or faculties for training secondary school teachers.

--There is a need for raising the level of students entering teacher training institutions.

--Because of the need to develop guidance and counseling in elementary and secondary schools, there is a need for more study of educational psychology.

--Because of a lack of teachers in teacher training institutions, class size is extremely large. This factor, together with the inadequate supply of texts, is largely responsible for poor student attendance.

--There is a need to further develop inservice training.

BIBLIOGRAPHY

BIBLIOGRAPHY

Association of Higher Educational Institutions. Visokosolski Zavodi v Maribor (Higher Educational Institutions in Maribor). Maribor: 1965. 1 p.

Auty, Phyllis. Yugoslavia. New York: Walker and Company, 1965. 240 pp.

"Belgrade's Population 2.3 Times More Than in 1945," Yugoslav News Bulletin, IV (February, 1966), 5.

Boskovic, Milica. "Education in Yugoslav Schools," Yugoslav Trade Unions, 14 (Belgrade: October-December, 1964), 27-33.

Confederation of Trade Unions of Yugoslavia. Basic Aims and Principles of Workers' Training. Belgrade: 1964. 42 pp.

Croatia. Institute for the Advancement of Education. Gimnazija Pedagoskog Smjera (Pedagogical Gymnasium). Zagreb: 1962. 22 pp.

Curriculum of the Pedagogical Academy. Maribor: 1965. p. 37.

Djordjevic, Jovan. "Universities in Yugoslavia," Information Service Yugoslavia, (Belgrade: 1955), 1-4.

Drulovic, Milojko. "Fifty Years of the University of Belgrade," Jugoslavija, 13 (1957), 30-31.

Duric, Suzana, and Gordana Dragicevic. "Women in Yugoslav Society and Economy," Studies, 2 (Beograd: 1965), 1-36.

Filipovic, Marijan. Higher Education in Yugoslavia. Beograd: Jugoslavija Publishing House, 1962. 121 pp.

Filipovic, Marijan. "Higher Education in Yugoslavia," *Studies*, 6 (Beograd: 1965), 1-56.

"Financing Education in Yugoslavia," *Yugoslav Life*, XI (June, 1966), 1.

"Increase in Students at Yugoslav Universities," *Yugoslav News Bulletin*, IV (February, 1966), 6.

"Increase in the Number of Experts," *Articles and Extracts from Review (Yugoslav Monthly Magazine)*, (Beograd: October, 1964), 1-3.

"Industrial Development," *Data on Yugoslavia*, (Beograd: Press Service, December 1964), 1-3.

"An International Laboratory for Research into Neurophysiology Has Been Established at Kotor," *Yugoslav News Bulletin*, IV (February, 1966), 6.

Janosi, Gabor. "Education and Culture of Nationalities in Yugoslavia," *Studies*, 4 (Beograd: 1965), 1-47.

Jemuovic, Rodoljub. "Education in Yugoslavia," *Studies*, 3 (Beograd: 1964), 1-43.

Jemuovic, Rodoljub. *Obrazovanje i Reforma* (Education and Reform). Beograd: Sedma Sila, 1966. 100 pp.

Montenegro. Institute for the Advancement of Education. *Nastavni Plan i Program za Pedagosku Akademiju* (Curriculum for the Pedagogical Academy). Titograd: 1963. 400 pp.

Montenegro. Republican Secretariat for Education, Culture and Science. *Program Razvitka Obrazovanja i Vaspitanja u Crnoj Gori za Period 1964-1970* (Program of Educational Development in Montenegro in the Period 1964-1970). Titograd: Institute for the Advancement of Education, 1964. 73 pp.

"Nastavni Plan i Program za Gimnaziju Pedagoskog Smjera," (Curriculum of the Pedagogical Gymnasium), *Prosvetni Vjesnik* (Educational Courier), 9-10 (December 12, 1962), 125.

"Nastavni Plan za Skole za Odgajetelje," (Curriculum for Pre-School Teachers), *Prosvetni Vjesnik* (Educational Courier), 10 (Croatia: December 21, 1964), 139.

"Nastavni Plan i Program za Uciteljske Skole," (Curriculum for the Teacher Training High School), *Prosvetni Glasnik* (Educational Herald), XIII, 7-8 (Belgrade: July-August, 1963), 204.

"National Minorities in Yugoslavia," *Data on Yugoslavia*, (Beograd: Press Service, November 1964), 1-4.

"New Engineering Faculty in Pristina," *Yugoslav News Bulletin*, IV (December, 1965), 4.

Nikolic, Milos. "Current Aspects of the Cultural Policy of the League of Communists in Yugoslavia," *Data on Yugoslavia*, (Beograd: Press Service, 1964), 1-14.

"Once An Idea Now the Basis of the Social System," *Yugoslav Life*, X (September, 1965), 1.

Organization for Economic Co-operation and Development. *Country Reviews: Yugoslavia*. Paris: the Organization, 1962. 62 pp.

Organization for Economic Co-operation and Development. *Mediterranean Regional Project Country Reports: Yugoslavia*. Paris: the Organization, 1965. 143.pp.

Opsti Zakon o Skolstvu (General Law on Education). Zbirka Saveznih Propisa (Collection of Federal Regulations), no. 11. Belgrade: Sluzbeni List SFRJ (Official Gazette of SFRY), 1964. 30 pp.

Pataki, S. *Opca Pedagogija* (General Pedagogy). Zagreb: Pedagosko-Knjizevni Zbor, 1964. 336 pp.

"Recent Events," *Review (Yugoslav Monthly Magazine)*, (December, 1965), 13.

"Reform of Higher Education," *Information Bulletin About Yugoslavia*, IV (September, 1959), 8.

"Reform of Higher Education," *Information Service Yugoslavia*, (Belgrade: 1960), 1-9.

"Reform of Higher Education," *Yugoslav Survey*, Vol. 1, no. 2. Belgrade: Jugoslavija, (July-September, 1960) 251-257.

"Research Institutes and Their Achievement," *Articles and Extracts from Review (Yugoslav Monthly Magazine)*, (Beograd: October 1964), 1-4.

"School Councils, Greater Rights for Staff Members," *Yugoslav Life*, X (June, 1965), 8.

Statut Visje Upravne Sole v Ljubljani (Statute of the College of Administration). Ljubljana: 1964. 48 pp.

"Two Decades in the Development of the Yugoslav Economy," *Data on Yugoslavia*, (Beograd: Press Service, December 1964), 4 pp.

Trade Union Congress. *Trade Unionism in Yugoslavia*. London: October 1964. 47 pp.

"University and Factory Join Forces," *Yugoslav Life*, X (December 1965), 8.

"University and High School Reform, *Information Bulletin About Yugoslavia*, II (August, 1957), 10.

University in Socialist Yugoslavia. Belgrade: National Commission of the FPR of Yugoslavia for UNESCO, 1955. 69 pp.

University of Belgrade. *Statut Pravnog Fakulteta u Beogradu* (Statute of the Law Faculty in Belgrade). Belgrade: 1961. 46 pp.

University of Ljubljana. *Statut Filozofske Fakultete v Ljubljani* (Statute of the Philosophical Faculties in Ljubljana). Ljubljana: 1964. 63 pp.

University of Zagreb. *Fakultet Politickih Nauka u Zagrebu* (Faculty of Political Science in Zagreb). Zagreb: 1963. 34 pp.

University of Zagreb. *Statut Medecinskog Fakulteta u Rijeci* (Statute of the Medical Faculty in Rijeka). Rijeka: 1965. 53 pp.

University of Zagreb. *Statut Prirodoslovno-Matematicki Fakultet* (Statute of the Natural Science-Math Faculty). Zagreg: 1962. 105 pp.

U. S. Joint Publications Research Service. Washington. "Educational Development in 1962--Yugoslavia." *Sociological Translations on Eastern Europe*, No. 165. JPRS Report 19,857, June 26, 1963. pp. 15-29.

U. S. Joint Publications Research Service. Washington. "Illiteracy and Its Elimination." *Sociological Translations on Eastern Europe*, No. 163. JPRS Report 19,770, June 20, 1963. pp. 6-19

U.S. Joint Publications Research Service. Washington. "Institutions for Training Primary School Teachers in Yugoslavia." *Sociological Translations on Eastern Europe*, No. 193. JPRS Report 22,875, January 24, 1964. pp. 1-10.

_____. _____. "Law on Professional Titles and Academic Degrees." *Sociological Translations on Eastern Europe*, No. 172. JPRS Report 20,366, July 29, 1963. pp. 17-28.

_____. _____. "The Organization of the Pedagogical Academy." *Sociological Translations on Eastern Europe*, No. 79. JPRS Report 11,409, December 6, 1961. pp. 43-85.

_____. _____. "Professional Titles and Academic Degrees." *Sociological Translations on Eastern Europe*, No. 189. JPRS Report 21,881, November 15, 1963. pp. 10-16.

_____._____. "Reform in Higher Education." *Sociological Translations on Eastern Europe*, No. 237. JPRS Report 25,696, August 3, 1964. pp. 56-62.

_____. _____. "Third Level of Instruction in Yugoslav Universities." *Sociological Translations on Eastern Europe*, No. 178. JPRS Report 20,907, September 4, 1963. pp. 16-33.

_____. _____. "The Temporary Plan and Program for Four-Year Teachers' Schools in the People's Republic of Bosnia and Hercegovina." *Sociological Translations on Eastern Europe*, No. 93. JPRS Report 13,209, March 29, 1962. pp. 30-32.

_____. _____. "Vocational Education and the Implementation of the New Conceptions about Advanced Schools." *Sociological Translations on Eastern Europe*, No. 97. JPRS Report 13,648, May 4, 1962. pp. 1-39.

Visoka Industrijsko-Pedagoska Skola (The Advanced School of Industrial Pedagogy). *The Training of Teachers for the Vocational Education*. Rijeka: 1965. 27 pp.

_____, *Visoka Industrijsko-Pedagoska Skola--Rijeka--1953-1963* (Advanced School of Industrial Pedagogy--Rijeka--1953-1963). Rijeka: 1963. 71 pp.

Vitez, Djordje. "Vocational Training of Workers in Beograd Power Industry Enterprises," *Yugoslav Trade Unions*, 14 (Belgrade: December, 1964), 67-71.

Yugoslav Life, XI (June, 1966), 7.

Yugoslavia. Federal Assembly. *General Law on the Financial Funds for Education*. Beograd: 1966. 15 pp.

_____. Federal Institute for Statistics. *Statistical Pocket-Book of Yugoslavia 1966*. Belgrade: February, 1966. 255 pp.

_____. Federal Secretariat for Education and Culture. *Report on the Educational Development in the 1964/65 Academic Year*. Beograd: 1965. 26 pp.

_____. Federal Secretariat of Information. "Forecast of the Population of Yugoslavia for the Period 1961-1981," *Yugoslav Survey*, Vol. V, no. 16 (January-March, 1964), 2261-2268.

_____. _____. "Post-Graduate Study," *Yugoslav Survey*, Vol. VII, no. 25 (April-June, 1966), 3643-3652.

_____. _____. "Professional Qualifications and Academic Degrees," *Yugoslav Survey*, Vol. V, no. 16 (January-March, 1964), 2317-2320.

_____. _____. "Scholarships and Credits Granted to Pupils and Students," *Yugoslav Survey*, Vol. VII, no. 26 (July-September, 1966), 3837-3842.

_____. _____. "Secondary Education," *Yugoslav Survey*, Vol. VI, no. 23 (October-December, 1965), 3369-3380.

_____. _____. *Yugoslav Survey*, Vol. VII, no. 24 (January-March, 1966), 3425-3568.

_____. Jugoslovenski Zavod za Proucavanja Skolskih i Prosvetnih Pitanja (Yugoslav Institute for Educational Research). *Pedagosko Obrazovanje Studenata Buducih Profesora Srednjih Skola* (Education of Future Secondary School Teachers). Beograd: 1963. 92 pp.

_____. _____. "Predlog za Unapredenje Sistema Obrazovanja na Drugom Stupnju," (Proposal for the Improvement of Education on the Secondary Level), *Revija Skolstva i Prosvetna Dokumentacija* (Review of School and Educational Documentation), no. 5. Belgrade: 1965. pp. 329-369.

_____. _____. *Sprovodjenje Reforme Osnovne Skole, Nastavnici Osnovne Skole* (The Carrying Out of Elementary School Reform, Teachers of Elementary Schools). Beograd: 1963. 51 pp.

_____. _____. "Uslovi za Upis na Fakultete u Nekim Zemljama" (Basis for Admission to Faculties in Some Countries), *Revija Skolstva i Prosvetna Dokumentacija* (Review of School and Educational Documentation), no. 3-4. Belgrade: 1965. pp. 282-292.

_____. Komisija za Reformu Skolstva (Commission for School Reform. *Obrazovanje Nastavnog Kadra u Novom Sistemu Obrazovanja i Vaspitanja* (Training of Teachers in the New System of Education). Beograd: 1957. 76 pp.

Yugoslavia. Savezni Sekretarijat za Prosvetu i Kulturu (Federal Secretariat for Education and Culture). Aktuelni Problemi Sprovodjenja Reforme Visokog Skolstva (Current Problems Accompanying the Reform of Higher Education). Beograd: 1963. 182 pp.

_____. Savezni Zavod za Proucavanje Skolskih i Prosvetnih Pitanja (Institute for Educational Research). Obrazovanje Nastavnika i Vaspitaca za Specijalne Skole i Ustanove (Education of Teachers and Pre-school Teachers for Special Schools and Institutions). Beograd: 1962. 205 pp.

_____. _____. Obrazovanje Vaspitaca za Rad sa Decom Predskolskog Uzrasta (Education of Nursery and Kindergarten Teachers for Work with Pre-School Children). Beograd: 1961. 127 pp.

_____. _____. Rasprostranjenost Slobodnih Aktivnosti Ucenika u Osnovnoj Skoli 1959/60 (Expansion of Free Activities of Students in Elementary School 1959/60). Beograd: 1961. 56 pp.

_____. _____. Strucno Usavrsavanje Nastavnika (Vocational Improvement of Teachers). Beograd: 1961. 57 pp.

_____. Savezni Zavod za Statistiku FNRJ (Federal Statistical Office of the FPRY). Osnovne i Srednje Skole 1954-55 i 1955-56 (Primary and Secondary Schools 1954-55 and 1955-56). No. 72. Beograd: 1957, 87 pp.

_____. _____. Visoke Skole 1961/62 i 1962/63 (Higher Schools 1961/62 and 1962/63). No. 339. Beograd: 1965. 156 pp.

_____. Secretariat for Education and Culture of the Federal Executive Council. *Stanje i Problemi Nastavnickog Kadra* (Status and Problems of the Teaching Profession). Beograd: 1962. 37 pp.

_____. Zavod za Statistiku SFRJ (Federal Statistical Office of the SFRY). *Statisticki Godisnjak SFRJ 1964* (Statistical Yearbook of the SFRY 1964). Belgrade: July 1964. 730 pp.

_____. _____. *Statisticki Godisnjak SFRJ 1965* (Statistical Yearbook of the SFRY 1965). Belgrade: 1965. pp. 319-332.

Zajednica Jugoslovenskih Univerziteta (Association of Yugoslav Universities). *Jugoslovenski Standardi u Univerzitetskoj Nastavi* (Yugoslav Standards in University Education. Beograd: 1964. 394 pp.

_____. *Univerzitet Danas* (University Today), IV, 3-4 (1963), 136-139.

_____. *Univerzitet Danas* (University Today), IV, 5-6 (1963), 173-229.

_____. *Univerzitet Danas* (University Today), VI, 1 (1965), 26-46.

APPENDIX A

GENERAL LAW ON EDUCATION*

(Revised Text)

Part One

I. BASIC PRINCIPLES

Article 1

Sociopolitical communities and working and other organizations found and develop schools and other institutions for the purpose of promoting education, in the interest of an all-round development of the socialist society and of the personality of the individual.

Article 2

Schools and other institutions for education and training are independent and self-managing working organizations engaged in activities which are of particular interest to society.

The school or other institution for education and training is administered by the members of the working communities directly and through management agencies elected and recalled by them.

Interested citizens and representatives of interested organizations and of the social community participate in accordance with the law in the administration of certain tasks in schools and other institutions for education and training.

Article 3

The purpose of education and training shall be:

To equip citizens and particularly the younger generation to make a contribution through their work on the basis of the contemporary achievements of science and technology to the constant development of the productive forces of society, to the strengthening of socialist social relations, to growth in material well-being and cultural progress in the social community as a whole, and to personal well-being and the improvement of the working man.

To develop a sense of social responsibility and to enable citizens to take an active part in social life and in social self-management.

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*Opsti Zakon o Skolstvu (General Law on Education), Sluzbeni List SFRJ (Official Gazette of the SFRY), (Belgrade: 1964).

To provide the foundations for a scientific outlook on the world, to develop a sense of the creative power of the human mind and material activity, to learn about the changing of nature and society, to create material well-being, culture, and civilization, and to build up socialist social relations.

To impart knowledge of the history and achievements of the Yugoslav peoples and of all mankind in various fields of scientific, technical, cultural, and artistic creation and to permit the acquisition of broader general and specialized education.

To contribute to the building of the whole human personality and of an independent and critical spirit with the intellectual, moral, and working characteristics and features of character of the citizen of a socialist community.

To train citizens and particularly the younger generation in the spirit of brotherhood, unity, and equality among the peoples of Yugoslavia, of loyalty to their socialist homeland and of the defense of its independence; and in the spirit of socialist humanism and of universal and equal cooperation and mutual assistance among peoples in the interest of peace and progress in the world, and in the spirit of the international solidarity of the working people.

To contribute to physical training in the interests of improving working abilities and of healthy personal life.

Article 4

In the realization of the purposes of education and training, schools and other institutions for education and training cooperate with the family, and with working, socio-political, specialized and other organizations.

The schools shall participate in various activities, and shall themselves organize these activities, for the purpose of cultural development of the area in which they are situated.

Article 5

Education shall be achieved by means of a unified system which shall consist of:

Pre-school institutions;
Elementary schools;
Gymnasia (secondary schools of general education) and specialized secondary vocational schools;
Colleges and Advanced schools, Art Academies and Faculties;
Other institutions for education and specialized training: school centers, various schools for adults, worker training centers, workers' and peoples' universities, and other institutions.

Specialized personnel are trained in working organizations through direct work and through other methods organized for this purpose by these organizations. Such working organizations concern themselves with the further education and training of their members.

The compulsory basic education and specialized training of children handicapped in physical and mental development shall be done in special schools.

Education and training shall also be carried out in pupils' homes and other educational institutions outside of schools.

Education of teachers, in addition to university faculties, advanced schools and art academies, shall be done in special schools founded for that purpose.

Article 6

Eight years of primary schooling are compulsory.

All citizens between seven and fifteen years of age must attend elementary school.

Article 7

All citizens, regardless of nationality, race, sex, social origin or religion, shall enjoy equal rights to education under the same conditions.

Article 8

Citizens who have completed elementary school may register under uniform conditions in a gymnasium, specialized school or other comparable educational institution if other stipulations for registration are not provided by law for particular types of schools.

Citizens who have finished the gymnasium or specialized vocational schools shall have equal rights to enroll, under the prescribed conditions, at corresponding colleges, university faculties, advanced schools and art academies.

Every citizen without appropriate educational background may enroll at a college, university faculty, advanced school or art academy, if, according to the prescribed conditions and curriculum, he shows that he possesses qualifications and ability for successful studies.

Article 9

The social community provides the material and other conditions for the foundation and operation of schools and other institutions for educating citizens and for improving their activities.

Citizens displaying success in education are guaranteed the requisite material assistance from public funds in accordance with special regulations.

To assist citizens to attend school and to create the most favorable possible circumstances for education and training, homes are set up for pupils and students and other favorable conditions are provided.

Health and medical service for the pupils and students shall be provided according to special regulations.

Article 10

Teaching in the schools and in other institutions for education and training in the entire territory of Yugoslavia shall be based upon uniform principles.

Teaching in schools and other institutions for education and training shall be done on the basis of curricula.

The curricula shall be determined in the manner prescribed by law.

Instructional plans and programs and the organization of work and life in schools and other institutions for education and training are adapted to the social and economic development of the community, to the goals of education and training, to contemporary pedagogical and scientific achievements, to the intellectual and physical potentialities of pupils and students, and to the vital needs of young people.

Article 11

Teaching in schools shall be done in the respective languages of the peoples of Yugoslavia.

Article 12

Instruction is provided to the members of particular nationalities in schools in their own language in accordance with the law.

Article 13

Education and training are based on the principles of science, the achievements of the history and culture of the peoples of Yugoslavia and of other peoples, and upon the ideological principles and humanistic spirit of socialism and are transmitted according to the principles of pedagogy.

In the realization of the aim of education and in teaching, the teachers shall be independent.

Article 14

To develop responsibility among pupils and students for their work and success in school and to introduce them into social self-management, pupils and students are guaranteed active participation in various aspects of the work and life of the school.

Pupils of a specific age and students shall participate in the management of the school and other institutions for education in accordance with the law.

Article 15

The schools shall issue certificates of completion of schooling which shall have the character of a public document.

The value of the certificates which other institutions for education issue shall be determined by law.

The certificates shall entitle the holders to only those rights which law specifies.

Certificates acquired in the territory of one Republic shall have the same value in the entire territory of Yugoslavia.

School certificates acquired abroad are subject to evaluation and registration according to a separate federal law.

Article 16

Schools and other institutions for education and training shall work in conformity with law and other regulations, as well as on the basis of statutes of schools and institutions.

Article 17

In order to discuss matters of common interest and to develop mutual cooperation and assistance, schools and other institutions for education and training may establish their associations.

The statute of such association of schools for the entire territory of Yugoslavia is submitted prior to definitive adoption to the Federal Assembly for review.

Article 18

An educational-pedagogical service is to be organized according to the provisions of law to improve education and training, to assist instructors in the transmission of instruction and in their specialized training, and to exercise pedagogical supervision over education and training in general, over the implementation of organizational regulations, and over the performance of the work of the schools in education and training.

Article 19

The basic principles of this Law shall apply to all schools and institutions for education and training.

For the schools which are founded for the requirements of the Yugoslav People's Army, special Federal regulations shall apply.

PART TWO--THE SYSTEM OF EDUCATION AND TRAINING

II. Institutions for Pre-School Education

Article 20

For the children of pre-school age, special institutions and other forms of education shall be organized (kindergartens, nurseries, day-nurseries, play-grounds, etc.).

These institutions and other forms of education may be organized depending on the local conditions and needs.

Article 21

The tasks of the institutions for pre-school education shall be expressly:

To organize for the children proper entertainment, games, and social life and thereby to contribute to their further education.

To help the parents, expecially those who are employed with the caring for the children and educating them.

To cooperate with the parents and extend professional aid to them in connection with the education of children.

The institutions for pre-school education shall encourage and assist, in the places in which they are functioning, various forms of assembling and educating the children and, to that end, especially cooperate with social organizations for the care of children.

III. ELEMENTARY SCHOOL

Article 22

Elementary education shall be acquired in elementary schools.

Elementary schools are schools of general education.

Article 23

The tasks of the elementary schools shall be expressly:

To extend to pupils the bases of socialist education and of contemporary general education;

To help the all-around development of pupils, to develop working habits, to cultivate and encourage their personal abilities and aptitudes and help them with the choice of a vocation.

For a more successful realization of its tasks, and for helping parents with education, the elementary school shall cooperate with the family.

It is also the task of the primary school to work on the primary education of adults.

Article 24

The bases of uniform instruction in the elementary school are to be confirmed in the way specified by Federal law.

Article 25

All children who complete seven years of age by the end of the calendar year, shall enroll in the elementary school.

On the basis of medical opinion and according to the facilities of the school, physically and mentally developed children who reach six and a half years of age at the end of the calendar year, may also enroll in the elementary school.

Physically and mentally handicapped children shall attend special schools.

Article 26

Parents or guardians of children up to fifteen years of age shall be responsible for said children regularly attending the elementary school.

Municipal agencies and school administration units concern themselves with regular attendance at primary school.

Article 27

The pupil of an elementary school may not be expelled from the school while his compulsory education period lasts.

Article 28

The pupil who is prevented by illness or other justifiable reasons from regularly attending school during a long period, may make up for the lost time by taking special examinations for individual classes or by regularly completing the elementary school up to the seventeenth year of age.

A person over fifteen years of age who has not completed the elementary school, may complete it by taking special examinations.

IV. GYMNASIUM

Article 29

The tasks of the gymnasium shall be expressly:

To widen and deepen the knowledge of natural and social sciences and general technical education;

To cultivate and encourage the personal abilities and

APPENDIX B

GENERAL LAW ON THE FINANCIAL FUNDS FOR EDUCATION*

The Principle Governing the Funds for Education

Article 1

For the purpose of furthering the development of socio-economic relations in the field of education on the basis of the system of self-management, and for the purpose of advancing the work in this field, this Law establishes the principles governing the acquisition of the financial funds (hereinafter referred to as "the funds") for a stable development of the material basis of education and its activities, the administration of those resources, as well as co-ordination of these activities with other fields of public work.

Article 2

As an obligatory and permanent source of the funds for education, a special tax upon the incomes of citizens (contribution for education) shall be introduced.

It may be determined by law that the funds for education be obligatory and permanently formed also from the funds which are fixed as a part of the municipal and republican turnover tax on retail trade and on services.

If the funds referred to in Paragraphs 1 and 2, of this Article, are not sufficient for the performance of the activities and for the development of the material basis of education on the territory of the respective socio-political community, that community shall furnish, from its own incomes, supplementary funds to the educational community in accordance with its obligations under the Constitution and Law.

The following shall be the sources of the funds for education: the funds which the work organizations and other corporate bodies and state organs are setting aside for the activities and development of education from the funds of which they independently dispose, as well as the funds which the citizens voluntarily give for education.

On the basis of a special federal law, a tax upon capital investments may also be introduced as a source of the funds for education.

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*Federal Assembly, General Law on the Financial Funds for Education, (Beograd: May 14, 1966).

aptitudes of pupils and to help them with the choice of further studies and vocations;

To contribute to further intellectual, physical, social, moral, and aesthetic education of pupils for the purpose of training them for active social work as well as for a wholesome cultural life.

Article 30

The gymnasium shall prepare those pupils who so desire for various practical activities in accordance with the law.

Certain gymnasiums may have the task to provide on a wider scale the knowledge of classic languages and to deepen education in liberal arts.

Article 31

The studies in the gymnasium shall last four years.

Special examinations may also be taken in the gymnasium.

At the end of the studies in a gymnasium a final examination has to be taken.

V. SPECIALIZED VOCATIONAL SCHOOLS AND OTHER INSTITUTIONS FOR SPECIALIZED TRAINING.

1. General Provisions

Article 32

The common tasks of the specialized vocational schools and other institutions for specialized training shall be expressly:

To provide the social community and working organizations with a steady influx of various types of specialized personnel such as to meet present and prospective needs in the community and in working organizations and at such a specialized and cultural level as to be capable of making a contribution to the constant and harmonious development of the productive forces and to improvement in social services;

To enable young people and adults to obtain appropriate specialized training in the light of their capabilities and inclinations and in line with the needs of the social community and working organizations;

To contribute to further intellectual, physical, social, moral, and aesthetic education and training, to equip citizens for active social work and a healthy and cultural life.

To organize the systematic training of individuals for work at specific jobs as well as their improvement, specialization, and training for jobs already being performed, i.e., retraining, and requalification.

The specialized schools also work as institutions for the training and specialization of adults.

Article 33

Specialized vocational schools and other institutions for specialized training may organize special classes for pupils who do not attend regular classes--part-time students.

In these schools special examinations also may be taken.

Article 34.

In the interests of training specialized personnel in line with the needs of the economy and social services, specialized vocational schools and other institutions for specialized training cooperate with interested economic and other working organizations.

Article 35

A final examination is taken at the conclusion of schooling in specialized vocational schools.

2. Art Schools

Article 36

The art schools shall extend to pupils, in addition to the general education, also education in specific branches of art or applied art and thereby prepare them for related activities or for further education in art.

Article 37

Upon the completion of studies in the art schools, the final examination shall be taken.

VI. COLLEGES, ADVANCED SCHOOLS, ART ACADEMIES AND FACULTIES

Article 38

Colleges train personnel for specialized vocational training and retrain vocational personnel.

Faculties, advanced schools and art academies train highly skilled experts for various branches of social activity, organize and promote scientific work and concern themselves with the upbringing of the next scientific and instructional generation and the further improvement of experts, and contribute to the economic, cultural, and social development of the country in cooperation with economic, cultural, and other institutions and organizations.

Article 39

Faculties are scientific and the highest instructional institutions for a specific field or group of fields.

Faculties, advanced schools and colleges, and art academies may join together in a university in accordance with the law.

The university, as a community of faculties, advanced schools, colleges and art academies, concerns itself with promoting and harmonizing instructional and scientific work and performs other duties of common interest.

Article 40

Regular instruction in faculties may include three independent but interconnected instructional levels.

Instruction at the first level prepares specialists with college training for various areas of the economy and other social activities, providing appropriate terminal education.

Instruction at the second level prepares specialists with advanced school training.

Every faculty and advanced school provides second level instruction.

Instruction of the third level prepares the highest trained specialists, introducing them to profound theoretical knowledge or to specialized or scientific fields, as well as to independent scientific work.

For persons who have completed the first or second levels of instruction, as well as for other citizens who meet necessary conditions, faculties establish permanent or temporary courses for improving specialized skills and for introducing knowledge of new work methods, problems of the field, and the like.

Article 41

Instruction of the first and second level lasts a total of four years, and at certain faculties may last three or five years.

Education which is attained through instruction on the first level or in a corresponding college is recognized for the purposes of continuing studies at the second level, in accordance with the law and the provisions of the faculty statute.

Instruction of the third level lasts at least one year and is organized always as an independent entity (unit).

Instruction at the third level may be given by faculties which meet the conditions imposed by law. Third level instruction may be introduced independently or in cooperation with faculties at certain advanced schools or by independent scientific institutions authorized by law.

Persons who have completed the second level of instruction at a faculty or advanced school in accordance with the statutes of these institutions, may register for instruction at the third level.

Article 42

The degree of doctor of science may be granted by faculties, advanced schools specified by law, and independent scientific institutions specified by law, in so far as instruction of the third level is offered.

The doctorate of sciences may be earned by citizens who completed instruction of the second level, and who have published appropriate scientific works or who have been outstanding in their highly specialized work or scientific achievements in practice, and if they successfully defend a favorably evaluated doctoral dissertation.

Citizens with the academic master's degree may earn the doctorate of sciences provided that by their work they have displayed their capability for independent scientific work, and if they successfully defend a favorably evaluated doctoral dissertation.

The doctoral dissertation, which must be an independent contribution to science, is publicly defended before a commission composed of professors or outstanding scientific workers.

Faculties will offer assistance to candidates in the preparation of the doctoral dissertation through special courses and other forms of scientific work.

Article 43

Part-time studies may be organized at colleges, advanced schools, art academies and faculties in accordance with the law.

Article 44

The provisions of this chapter also apply to colleges, advanced schools and art academies insofar as the law does not provide otherwise for particular types of schools.

The provisions of Article 42 are not applicable to colleges.

Certain advanced schools may be organized to provide both instruction and scientific work or solely to provide instruction.

VII. SPECIAL SCHOOLS

Article 45

Special schools shall be founded in order to make it possible for children and youth who are physically and mentally handicapped to acquire elementary general and vocational education and training for independent life and work.

The education and training of children who are physically and mentally handicapped are the responsibility of special pre-school institutions, special departments of schools, or of departments within appropriate public-health and social institutions and other institutions set up for this purpose.

Children who are physically and mentally handicapped are directed to special schools under uniform conditions which are specified by federal regulations.

Article 46

Children, whom a commission of experts in the corresponding medical and other institutions find that such an education and training is required, shall be sent to the special schools and corresponding institutions.

Pupils going through special schooling may pass to regular schools on the basis of the opinion of the commission of experts.

VIII. INSTRUCTION FOR THE MEMBERS OF PARTICULAR NATIONALITIES

Article 47

In the territories in which members of particular nationalities live, institutions for pre-school training, elementary schools, secondary schools, special schools and departments of such schools and institutions, shall be founded in accordance with the law of the republic, and teaching will be in the national language of the respective national minority.

Article 48

The training of teachers for the schools for the members of particular nationalities shall be in their language and for this purpose special schools or sections in schools for teacher training shall be founded.

Article 49

In the schools and sections for the members of particular nationalities, the curriculum shall also include the teaching of the subject of their national culture.

For the purpose of ensuring active participation by the members of particular nationalities in the social life of the country, in the schools and sections for the members of these nationalities, the teaching of the language of the republic shall also be one of the subjects.

Article 50

In the territories in which members of particular nationalities and peoples of Yugoslav nationalities live together, schools with bilingual instruction shall be founded depending upon the facilities available.

IX. ADULT EDUCATION AND ADVANCED PROFESSIONAL TRAINING

Article 51

For the purpose of making it possible for the citizens to supplement and improve their general education and professional qualifications and to acquaint them with the progress and achievements in the field of science, technology and culture, adult education and advanced professional training shall be organized.

Article 52

The basic tasks of adult education and advanced professional training shall be expressly:

To extend literacy, practical knowledge and general education to the citizens;

To permit specialized training or requalification, the expansion and improvement of specialized training, as well as the acquisition of higher education;

To extend proper social-economic education to producers and workers in social services.

To enable citizens to broaden their knowledge of various fields of science, technology, and culture according to their personal interests, inclinations, and needs.

Article 53

Institutions and organizations founded for that purpose shall concern themselves with adult education and advanced professional training, namely: the workers' and people's universities, various schools for adults, cooperative schools, domestic science schools, schools for village youth, centers for training of cadets, popular science and technology organizations, etc.

All schools, ranging from elementary school to university faculty, as well as social and economic organizations and institutions and public health centers, libraries, museums, radio-television and other media of public information, etc., shall also concern themselves with adult education and advanced professional training.

Article 54

Institutions for adult education and advanced professional training shall develop their organization, activities, tasks, method and forms of work in conformity with the needs of the social, economic and cultural development of the country and coordinate it with the requirements of the respective area, working organizations, and, as well as with the interests and needs of individuals.

These institutions shall work, as a rule, according to the curricula adapted to the age of the students.

X. TEACHER TRAINING SCHOOLS

Article 55

Teachers for general education schools, vocational schools and special schools, as well as for institutions for pre-school education, adult education and advanced professional training shall be trained in special schools and other institutions organized for that purpose and in other schools foreseen by this law.

Instructors educated in schools in which this is not the basic purpose are permitted to acquire the requisite pedagogical training.

Article 56

The tasks of the schools for training of teachers shall be the following:

To provide pupils and students with professional knowledge for the realization of the general aims of education and of special tasks of schools in which they will teach;

To extend to pupils and students pedagogical training for teaching and for utilization of modern teaching methods and forms of educational work.

The schools in which the teachers are trained shall also carry on research work in the field of education for the purpose of advancing education and training and in preparing pupils and students for this work.

These schools shall also work for advanced training of teachers.

PART THREE--THE LIFE AND WORK OF SCHOOLS

XI. Principles Governing the Internal Life and Work of Schools

Article 57

Every school and other institution for education regardless of its social tasks, shall be so organized that its entire internal life, relationship, forms and methods of work contribute towards the realization of the aim of education.

Article 58

A school shall be obligated expressly:

To apply and develop the forms and methods of educational work which are based upon the linking of teaching with the application of acquired knowledge;

To achieve the linking of education with productive work by means of utilizing out-of-school activities of youth and in cooperating with economic and social organizations and institutions.

Vocational schools, especially the schools for skilled workers, shall devote particular attention to the conditions and organization of practical training in the school workshops and in various economic organizations.

Article 59

The school shall inspire the expansion and enrichment of educational work by means of various forms of free activities of pupils.

In cooperation with social organizations, the teachers shall help with the organization and carrying out of the program of free activities for the pupils.

Article 60

In cooperation with the institutions for vocational guidance, the school shall help parents and pupils with the choice of school and vocation according to the aptitudes and abilities of the pupils, and to this end it shall follow their development and give information on the character and conditions of work of various types of schools and vocations.

Article 61

The school year shall begin on September 1, and end on August 31, if not otherwise specified by regulations for particular types of schools and other institutions for education and training. The duration of instruction in the course of the school year is specified by law.

The beginning and end of instruction and school vacations are determined according to climatic conditions and the nature of a particular school.

Article 62

During school holidays, on Sundays, and on state holidays there shall be no teaching in schools.

XII. THE PUPILS (STUDENTS)

Article 63

Every pupil (student) shall have the right and duty to contribute, according to his age, towards the realization of the aim of education in his school.

Article 64

Pupils are obliged to attend school regularly, to work and study, to respect the rules of school life and work, and to fulfill other school-pupil obligations.

Article 65

For the purpose of developing initiative, independence, a sense of discipline and responsibility of pupils for their work and the success of the school, to strengthen the organized collective, to promote mutual cooperation among the pupils; and to promote active cooperation with the instructors in realizing the goals of education and training, pupils in the final year of primary school and pupils in specialized schools and secondary schools set up class or departmental pupils' associations and schoolwide pupils' associations.

Pupils participate in school self-management in accordance with the law through the pupils' associations and through elected representatives in school administrative units.

Article 66

At meetings of their organizations the pupils shall discuss all questions affecting the life and work of the school

School units are obliged to discuss proposals forwarded by pupils' associations and to adopt conclusions relating thereto.

Article 67

For the purpose of improving their social and cultural life, technical education and physical training, the pupils may establish their organizations and clubs.

These organizations shall be voluntary and shall be based upon the principles of self-government.

Article 68

Students take advantage of various forms of association and self-management to participate actively in social life and educational and instructional work to promote initiative, independence, conscious discipline, responsibility, and assistance to instructors in realizing the goals of education and training.

The statute of a university, faculty, college or advanced school, or art academy will define the rights and duties of students in greater detail.

Article 69

In pupil or student homes, a house association is formed of all pupils or students.

Pupils or students take part in self-management through their house association and through elected representatives in the administrative units of the pupil or student home.

The house association will examine the problems of life and work in its pupil or student home and will forward suggestions and requests relating to improvement in the life and work and work in such homes to administrative units.

XIII. THE TEACHERS

Article 70

As educators and experts, the teachers shall actively participate, through their work in school and outside of it, in the education of youth and in the spreading of education and culture.

Article 71

The teachers shall organize and conduct the educational work of the school and shall be responsible for the achievement of all the aims of education.

Article 72

A person may be a teacher who possesses the prescribed pedagogical and professional qualifications and who with his or her work and life, social and moral qualities, provides a guarantee for the realization of the aims of education.

Article 73

In the institutions for pre-school education, teachers may be persons who have finished the school for teachers in pre-school institutions or a corresponding school.

Teachers of the elementary school may be persons who have finished the secondary teacher training school, pedagogical college or academy of pedagogy, and persons who have graduated from the corresponding university faculty, advanced school or [illegible] art academy.

Persons who have finished the corresponding school for training teachers of special schools, may be teachers in special schools and corresponding institutions.

Persons who have graduated from the corresponding university faculty, advanced school learning or art academy, may be teachers in the vocational schools and gymnasium, while persons who have finished the corresponding vocational school or school for training of teachers of vocational schools may also teach individual subjects.

Instructors, assistants, and other staff members in colleges and advanced schools, art academies, and faculties may be persons who fulfill the conditions specified by law in relation to specialized, scientific, or artistic work.

It shall be determined, by regulations on individual kinds of schools and other institutions for education, what other qualified persons may perfrom the work of teachers or instructors in those schools and institutions.

Article 74

In order to enable teachers and instructors to improve their professional and pedagogical knowledge and to follow the progress of pedagogical theory and practice and subjects in which they teach, an obligatory periodical advanced training of teachers shall be introduced.

PART FOUR--THE POSITION AND ORGANIZATION OF SCHOOLS AND OTHER INSTITUTIONS FOR EDUCATION

XIV. The Foundation and Dissolution of Schools

Article 75

Schools are founded by law or in accordance with conditions specified by law.

Article 76

A school may be founded if the prescribed conditions have been fulfilled with respect to the number of pupils, teaching staff, school premises, equipment and teaching aids, as well as other conditions provided for by laws on various kinds of schools.

Article 77

The founder shall have such rights and duties towards the school or another institution for education as provided for by law or other regulations.

Article 78

Primary schools, secondary schools, vocational schools and special schools may begin work after it has been established that the prescribed conditions have been fulfilled for the beginning of work in the corresponding school.

Article 79

If it is established that a primary school, secondary school, vocational school, or special school does not fulfill any of the prescribed conditions for work, the founding agency will be called upon to take action to eliminate the shortcomings noted within a specific period of time.

If the founding agency does not eliminate the shortcomings within the period of time specified, a decision may be taken to stop the work of the school or of a particular department thereof until the prescribed conditions for the work of the school have been fulfilled.

Article 80

A school may be abolished only under conditions laid down by laws for various kinds of schools which pertain to the conditions of work of the school, the fulfillment of the task of a school and the need of its further existence.

Article 81

Each school has its own statute.

The school statute specifies internal organizational arrangements, the jurisdiction and responsibility of administrative units, the status of working units and the rights and duties involved in their management, questions to be decided directly by the members of the working community of the school, the manner and forms of these decisions, and other questions of significance to self-management in the school and its activity.

The statute of a school or of a particular department thereof is confirmed under law by the assembly of the sociopolitical community specified by law.

PART FIVE

XV. CONCLUDING REGULATIONS

Article 82

Data are maintained uniformly on matters of interest to the country as a whole in schools and other institutions for education and training. The Federal Secretariat for Education and Culture issues regulations to specify which data are to be maintained and in what manner.

The Federal Secretariat for Education and Culture and the Federal Secretariat for Public Health and Social Policy jointly specify the conditions stipulated under Article 45, Paragraph 3, of the present law relating to the admission of children who are physically and mentally handicapped to special schools.

Article 83

The provisions of Article 15, Paragraph 4, and of Article 82 of this law are directly applicable as provisions of the basic law.

Article 84

The Law on the Doctorate of Sciences (Sluzbeni List FNRJ, No. 29/55) will remain in effect until the end of 1964.

The Doctorate of Sciences may be earned under the provisions of the Law on the Doctorate of Sciences until the end of 1964.

Article 85

The bases of the instructional plan and program for the elementary schools (supplement to Sluzbeni List FNRJ, No. 13/59) will continue to be applicable until the adoption of new bases for uniform instruction in the elementary school (Article 24 of this Law).

Article 86

The following cease to be valid as of the effective date of the present law (Sluzbeni List FNRJ, No. 1/64):

1. The Law on the College of Railway Transport (Sluzbeni List FNRJ, No. 35/57);

2. The Law on Administrative Schools (Sluzbeni List FNRJ, No. 29/56).

3. The General Law on Faculties and Universities (Sluzbeni List FNRJ, No. 29/60).

4. The Decree on the Railway Transport School (Sluzbeni List FNRJ, No. 1/47).

5. The Decree on the Foundation and Work of the Maritime College (Sluzbeni List FNRJ, No. 29/49).

6. The Decree on the Foundation and Work of the Postal-Telegraph-Telephone Technical Schools in Belgrade and Zagreb (Sluzbeni List FNRJ, No. 32/49).

7. Decree on Vocational Schools (Sluzbeni List FNRJ, No. 39/52.

8. Decree on the Organization and Work of Administrative Schools (Sluzbeni List FNRJ, No. 44/56).

9. Order on Competitions and Conditions for registration in Faculties, Advanced Schools, and Art Academies (Sluzbeni List FNRJ, No. 12/59).

10. General Instructions on Obligatory Practice on the part of Regular Students and Pupils in Secondary Vocational Schools (Technical Schools) and Special Vocational Schools (Sluzbeni List FNRJ, No. 49/48).

11. General Instruction on Schools for the General Education of Workers (Sluzbeni List FNRJ, Nos. 67/49 and 5/50).

12. General Instruction on the Registration of Graduates of Pedagogical Colleges in Faculties (Sluzbeni List FNRJ, No. 77/49).

13. Regulation on the Organization and Work of the Educational Council of Yugoslavia (Sluzbeni List FNRJ, No. 10/59).

14. Instruction on the Issuance of Certificates to Persons Who Lost Their School Certificates During the Occupation (Sluzbeni List DFJ /Yugoslav Official Newspaper/, No. 44/45).

15. General Instruction on the Organization, Work, and Control of the Obligatory Practice of Regular Students and Pupils in Secondary Vocational Schools (Technical Schools) (Sluzbeni List FNRJ, No. 50/49).

16. General Instruction on the Principles of Grading Pupils and on the Conditions for Advancement in the Elementary School and Gymnasium (Sluzbeni List FNRJ, No. 7/60).

17. Ruling on Monetary Compensation to Workers During Absences from Work for Purposes of Taking Examinations in Schools for the General Education of Workers (Sluzbeni List FNRJ, No. 95/49).

18. Ruling on the Operations of Pupils' Workshops in Vocational Schools with Practical Training (Sluzbeni List FNRJ, No. 46/52).

Relationships set up prior to the effective date of this law under Article 16 of the Law on Administrative Schools will remain valid until the end of the 1964-1965 school year.

The Maritime College, the College of Railway Transport, and the Railway Transport School will continue work under the general regulations on schooling.

Founder's rights in relation to the College of Railway Transport are exercised by the Association of Yugoslav Railways, while founder's rights in relation to the Railway Transport School are enjoyed either by the Association of Yugoslav Railways or by an organization within the framework of the above-named Association of Yugoslav Railways as specified by the latter.

Article 3

The citizens shall pay a muncipal and a republican contribution for education as a tax upon personal income.

The amount of the municipal and republican contribution for education as a tax upon personal income from employment, shall be fixed by the municipal and republican regulations for the same taxpayers and on the same tax bases as the tax upon personal income from employment introduced by the Basic Law on Contributions and Taxes Payable by Citizens.

The municipal and republican contributions for education referred to in Paragraph 2, of this Article, shall be fixed in proportion to the base of those contributions.

The municipal and republican contribution for education as a tax upon agricultural activity, upon independent performance of craft and other business activities, upon independent performance of intellectual services, and upon copyright, patents and technical improvements, shall be fixed as a part of the municipal and republican contribution as a tax upon personal income from agricultural activity, upon independent performance of craft and other business activities, upon independent performance of intellectual services, and upon copyright, patents and technical improvements--introduced by the Basic Law on the Contributions and taxes Payable by the Citizens.

The lowest rate of the municipal contribution for education referred to in Paragraphs 2 and 4 or this Article, may be fixed by law.

Article 4

The funds for education from the sources fixed in Article 2, Paragraphs 1, 2 and 3, of this Law shall be the funds of the respective educational community (educational community fund).

The funds which the work organizations and other corporate bodies, state organs and citizens voluntarily give to the educational community (Article 2, Paragraph 4) shall also go to the educational community fund.

Article 5

For the purpose of a more rational utilization of the money lying in the real estate amortization funds of the field of education, it may be determined by law that a part of that money is put together in the funds of the educational communities as a credit resource for the expansion of the material basis of education, under the obligation that it is returned to the work organizations to which it belongs.

The Principles Governing the Educational Communities

Article 6

Educational communities shall be founded for the purpose of the fullest possible realization of the public role of education for the direct linking of the activities of the educational institutions with the needs of the economy and of the public services and deciding on the disposition of the public funds for education, as well as the examination of other questions of common and general interest in the field of education.

The institutions for education, the work organizations in the economy, and in the public services, and other interested organizations and citizens, shall constitute an educational community.

Article 7

An educational community shall be a self-managed organization.

An educational community shall have the status of a corporate body.

Article 8

An educational community shall be founded for a specific area which represents an appropriate whole in the organization of the network of educational institutions, for the territory of a republic, for one or more economic activities and public services, or for several organizations, in conformity with law.

Article 9

The highest organ of the educational community for a specific area shall consist of representatives of the educational institutions, of the work organizations in the economy and public services, of other interested organizations and of citizens, as well as of a specific number of representatives of the socio-political communities on the territory for which the educational community is founded.

The highest organ of the educational community for the territory of a republic shall consist of representatives of the educational communities in the territory of the republic, of representatives of the associations of the educational institutions, of representatives of the associations of the work organizations in the economy and public services, of representatives of other interested organizations, as well as a specific number of representatives of the republic.

The highest organ of the educational community for individual branches of the economy and of the public services shall consist of representatives of the educational institutions whose activities are financed from the funds of that community and of representatives of the interested work organizations and other organizations and their associations, as well as a specific number of representatives from those socio-political communities which participate in the providing of the funds for that educational community.

Article 10

The statutes of an educational community shall determine its organs, their composition and number of members, the sphere of their activities, the method of their work and their mutual relations; the special bodies for the various questions in the sphere of the activities of the community (sections, commissions, and so forth); the criteria and method of distribution of the funds which belong to the community; the method of informing the public about the work of the community and the method of introduction of its general regulations; as well as other questions of importance for realization of its tasks.

Article 11

The educational communities shall concern themselves with the organization and development of those educational activities which the citizens on their territories jointly use, as well as with the securing of funds for those activities; ; and they shall also cooperate with one another on other questions of common and general interest, and they may also regulate the relations among them by contracts.

The educational community for the territory of a republic shall encourage cooperation among the educational communities on its territory, as well as their cooperation with the educational communities in other republics.

Article 12

The amount of the municipal contribution for education, the amount which the respective municipalities contribute from their own incomes in the educational community fund, as well as other incomes fixed by law, shall go to the educational community of a specific area.

The amount of the republican contribution for education, the amount which the republic contributes from its own incomes in the educational community fund, as well as other incomes fixed by law, shall go to the educational community for the territory of a republic.

Article 13

An educational community for certain economic activities and public services, or for several work organizations, which, in accordance with the conditions fixed on the basis of law, organizes the education of personnel for the needs of the work organizations and other organizations, shall get, not only the funds which the work organizations allocated to the educational community, but also a part of the amount of the contribution by the working men of those organizations which, under law, is put in the educational community fund for a specific area or for the territory of a republic. This part of the money shall be fixed in proportion to the amount, kind and quality of the work in the performance of the educational activity in accordance with the law.

If an educational community for the activities of the economy and of public services is organized for the territory of two or more republics, the part of the money which goes to that educational community shall be fixed by agreement between that community and the respective republican communities.

Article 14

An educational community shall: administer the funds which belong to it; determine what activities and development of the material basis of education will be financed from those funds (program of the educational community); on the basis of specific norms, fix the criteria for distribution of the funds in accordance with the general regulations on institutions; decide on the distribution of those funds; and also deal with other questions of general and common interest in the field of education.

Article 15

The education community for a specific area or for the territory of a republic shall secure funds for the activities and for the development of the material basis of the educational institutions prescribed by law, as well as other institutions and activities for full-time and part-time education if that is envisaged, in accordance with social plans, by the program of the educational community (Article 14).

Article 16

An educational community may furnish guarantees for the credits which the educational institutions draw from the general and special credit sources; it may provide, from the money which belongs to it, down-payment for the educational institutions for obtaining credits from the commercial banks and other givers of credits; and it may give money for coverage of the difference in the rate of interest between the credit which the commercial banks give and the credits which an educational community gives from its own resources.

An educational community may grant credits for education and provide funds for other needs in the field of education specified by law.

For the purpose of advancement of education, an educational community may finance the scientific-research work in the field of education and grant scholarships for persons who are preparing to be teachers.

Article 17

The educational community for the territory of a republic shall provide, in conformity with law, for the educational community for a specific area, the required additional funds if the latter is unable to insure with the funds which belong to it the necessary conditions prescribed by the general regulations for the activities and development of the material basis of education in its area.

If the educational community for the territory of a republic does not fully provide the funds referred to in Paragraph 1, of this Article, the additional funds shall be provided, in conformity with law, directly from the republican budget and from other resources of the republic under the condition stated in Paragraph 1 of this Article.

Article 18

To those work organizations which directly organize and finance the education of the personnel for their needs in accordance with the conditions fixed on the basis of law, the respective educational community shall furnish the part of the funds which the working men of those work organizations under law pay into the fund of that educational community, and in the amount which corresponds to the activity of education of personnel for their needs. If the work organizations organize and finance the education of personnel for broader needs, additional funds shall be furnished to them according to the criteria fixed on the basis of law.

Article 19

The relations among the educational communities (Article 13) and the relations between an educational community and a beneficiary of funds or a work organization (Article 18) shall be fixed by a contract.

Article 20

A socio-political community shall secure the general conditions for the realization of the tasks of the educational community on its territory.

The assembly of a socio-political community shall examine and approve the statutes of an educational community in accordance with law, examine the report on the work of the educational community and the opinions and proposals which the educational community submits to it, examine the balance-sheet, secure the performance of the technical and administrative work for the educational community unless otherwise prescribed by law, and have vis-a-vis the educational community other rights and responsibilities fixed by law.

Concluding Provisions

Article 21

The funds for education in accordance with the principles of this Law, shall be provided from January 1, 1967.

Article 22

With respect to computation and collection, guarantee, interest, exemptions, penal measures, legal means and other things relating to computation and collection of the tax upon personal income for education, the corresponding provisions of the Basic Law on Contributions and Taxes Payable by Citizens shall accordingly apply.

The provision of Paragraph 1, of this Article shall apply as a provision of a basic law.

Article 23

This Law shall not apply to the provision of funds for the activities and development of the educational communities which are founded for the needs of the Yugoslav People's Army and of the organs of internal affairs.

Article 24

This Law enters into effect on the eighth day following the date of its publication in the "Official Gazette of the SFRY".